

Express Mail Label No.: EL862124523US

Date of Deposit: April 3, 2002

PATENT APPLICATION

Attorney Docket No. 21402-167 (Cura-463)



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENTS & TRADEMARKS: Kekuda et al.

SERIAL NUMBER: 09/981,566

EXAMINER: Not Yet Assigned

FILING DATE: October 16, 2001

ART UNIT: 1653

FOR: NOVEL GPCR-LIKE PROTEINS AND NUCLEIC ACIDS ENCODING
SAME

Box SEQUENCE

Assistant Commissioner for Patents
Washington, D.C. 20231

RECEIVED

APR 25 2002

TECH CENTER 1600/2900

**STATEMENT IN SUPPORT OF COMPUTER READABLE
FORM SUBMISSION UNDER 37 C.F.R. § 1.821(f)**

I hereby state that the content of the paper and computer readable forms of the Sequence Listing, submitted in the above-identified application in accordance with 37 C.F.R. § 1.821(c) and 1.821(e), respectively, are the same. No new matter is added.

Respectfully submitted,

Kristin E. Konzak, Reg. No. 44,848
Technology Specialist / Patent Agent
c/o MINTZ, LEVIN
One Financial Center
Boston, Massachusetts 02111
Tel: (617) 542-6000
Fax: (617) 542-2241

Date: April 3, 2002



SEQUENCE LISTING

-X 11

<110> Kekuda et al.

<120> Novel GPCR-like Proteins and Nucleic Acids Encoding
Same

<130> 21402-163

<140> 09/981,566

<141> 2001-10-16

<150> 60/240,704

<151> 2000-10-16

<150> 60/262,159

<151> 2001-01-17

<150> 60/263,340

<151> 2001-01-22

<150> 60/264,118

<151> 2001-01-25

<150> 60/308,203

<151> 2001-07-27

<150> 60/243,497

<151> 2000-10-26

<150> 60/244,542

<151> 2000-10-31

<150> 60/269,031

<151> 2001-02-15

<150> 60/245,484

<151> 2000-11-03

<150> 60/255,017

<151> 2000-12-12

<150> 60/263,216

<151> 2001-01-22

<150> 60/268,225

<151> 2001-02-12

<160> 209

<170> PatentIn Ver. 2.1

<210> 1

<211> 964

<212> DNA

<213> Homo sapiens

RECEIVED

APR 25 2002

TECH CENTER 1600/2900

<400> 1

ggccccatac tgtggatcat ggcaaatctg agccagccct ccgaatttgt cctcttggc 60
 ttctctcctt ttggtagct gcaggccctt ctgtatggc cttcttcat gctttatctt 120
 ctgccttca tggaaacac catcatata gttatggta tagtgacac ccacctacat 180
 acaccatgt acttcttctt gggcaatttt tccctgtgg agatcttggt aaccatgact 240
 gcagtgccca gatgtctc agacctgtt gtcggccaca aagtcattac cttcaactggc 300
 tgcattgtcc agttctactt ccactttcc ctgggttcca cttcttctt catcctgaca 360
 gacatggccc ttgatcgctt tgtgccatc tgccaccac tgcgtatgg cactctgatg 420
 agccgggcta tgtgtgtcca gctggctggg gctgcctgg cagtcctt cctagccatg 480
 gtaccactg tcctctcccg agtcatctt gattactgcc atggcagct catcaaccac 540
 ttcttctgtg acaatgaacc tctcctgcag ttgtcatgt ctgacactcg cctgttgaa 600
 ttctgggact ttctgtatggc cttgacctt gtcctcagct cttcttgg gaccctcata 660
 tcctatggct acatagtgtac cactgtgtg cggatccctt ctggcagcag ctggcagaag 720
 gctttctcca cttgcgggtc tcacccaca ctggcttca tcggctacag tagtaccatc 780
 tttctgtatg tcaggcctgg caaagctcac tctgtgcag tcaggaaggt cgtggccttg 840
 gtgacttcag ttctcacccc cttctcaat cccttatcc ttaccttctg caatcagaca 900
 gttaaaacag tgctacaggg gcagatgcag aggctgaaag gccttgcaa ggcacaatga 960
 tgag 964

<210> 2

<211> 313

<212> PRT

<213> Homo sapiens

<400> 2

Met Ala Asn Leu Ser Gln Pro Ser Glu Phe Val Leu Leu Gly Phe Ser
 1 5 10 15

Ser Phe Gly Glu Leu Gln Ala Leu Leu Tyr Gly Pro Phe Leu Met Leu
 20 25 30

Tyr Leu Leu Ala Phe Met Gly Asn Thr Ile Ile Ile Val Met Val Ile
 35 40 45

Ala Asp Thr His Leu His Thr Pro Met Tyr Phe Phe Leu Gly Asn Phe
 50 55 60

Ser Leu Leu Glu Ile Leu Val Thr Met Thr Ala Val Pro Arg Met Leu
 65 70 75 80

Ser Asp Leu Leu Val Pro His Lys Val Ile Thr Phe Thr Gly Cys Met
 85 90 95

Val Gln Phe Tyr Phe His Phe Ser Leu Gly Ser Thr Ser Phe Leu Ile
 100 105 110

Leu Thr Asp Met Ala Leu Asp Arg Phe Val Ala Ile Cys His Pro Leu
 115 120 125

Arg Tyr Gly Thr Leu Met Ser Arg Ala Met Cys Val Gln Leu Ala Gly
 130 135 140

Ala Ala Trp Ala Ala Pro Phe Leu Ala Met Val Pro Thr Val Leu Ser
 145 150 155 160

Arg Ala His Leu Asp Tyr Cys His Gly Asp Val Ile Asn His Phe Phe

	165		
Cys Asp Asn Glu Pro Leu Leu Gln Leu Ser Cys Ser Asp Thr Arg Leu		170	175
180		185	
Leu Glu Phe Trp Asp Phe Leu Met Ala Leu Thr Phe Val Leu Ser Ser			190
195		200	
Phe Leu Val Thr Leu Ile Ser Tyr Gly Tyr Ile Val Thr Thr Val Leu			205
210		215	
Arg Ile Pro Ser Ala Ser Ser Cys Gln Lys Ala Phe Ser Thr Cys Gly			220
225		230	
Ser His Leu Thr Leu Val Phe Ile Gly Tyr Ser Ser Thr Ile Phe Leu			235
240		245	
Tyr Val Arg Pro Gly Lys Ala His Ser Val Gln Val Arg Lys Val Val			250
255		260	
Ala Leu Val Thr Ser Val Leu Thr Pro Phe Leu Asn Pro Phe Ile Leu			265
270		275	
Thr Phe Cys Asn Gln Thr Val Lys Thr Val Leu Gln Gly Gln Met Gln			280
285		290	
Arg Leu Lys Gly Leu Cys Lys Ala Gln			295
300		305	
310			

<210> 3
<211> 971
<212> DNA
<213> *Homo sapiens*

<400> 3
 cccctatactg tggatcatgg caaggcacaa tcatgagcca gcccctcgaa tttgtcctct 60
 tgggcttctc ctcccttggt gagctgcagg ccctctgtt tggccccttc ctcatgttt 120
 atctttctgc cttcatggga aacaccatca tcatagttat ggtcatagct gacaccacc 180
 tacatacacc catgtacttc ttcttggca attttccct gctggagatc ttggttaacca 240
 tgactgcagt gcccaggatg ctctcagacc tggggtccc ccacaaagtc attacccatca 300
 ctggctgcat ggtccagttc tacttccact tttccctggg gtccacccccc ttccctcatcc 360
 tgacagacat gggcccttgat cgctttgtgg ccacatctgcca cccactgcgc tatggactc 420
 tcatgagccg ggctatgtgt gtccagctgg ctggggctgc ctgggcagct cctttccctag 480
 ccatggtaacc cactgttctc tcccggatctc atcttgatta ctgcatggc gacgtcatca 540
 accacttctt ctgtgacaat gaaaccttcc tgcagttgtc atgcctgtcactgc 600
 tggaaattctg ggactttctg atggccatga cctttgtcct cagctcttc ctggtgaccc 660
 tcatctcata tggctacata gtgaccactg tgctggat cccctctgc agcagctgcc 720
 agaaggctt ctccacttgc gggtctcacc tcacactgtt cttcatcggt tacagtagta 780
 cccatcttctt gtatgtcagg cctggcaaaag ctcaactgtt gcaagtcagg aaggtcggtt 840
 ccttgggtgac ttcaatttcc acccccttc tcaatccctt tattcattacc ttctgcaatc 900
 agacagttaa aacagtgtca cagggcaga tgcaaggatc gaaaggcctt tgcaaggcac 960
 aatgtatgagc c 971

<210> 4
<211> 311

<212> PRT

<213> Homo sapiens

<400> 4

Met Met Ser Gln Pro Ser Glu Phe Val Leu Leu Gly Phe Ser Ser Phe
1 5 10 15

Gly Glu Leu Gln Ala Leu Leu Tyr Gly Pro Phe Leu Met Leu Tyr Leu
20 25 30

Leu Ala Phe Met Gly Asn Thr Ile Ile Ile Val Met Val Ile Ala Asp
35 40 45

Thr His Leu His Thr Pro Met Tyr Phe Phe Leu Gly Asn Phe Ser Leu
50 55 60

Leu Glu Ile Leu Val Thr Met Thr Ala Val Pro Arg Met Leu Ser Asp
65 70 75 80

Leu Leu Val Pro His Lys Val Ile Thr Phe Thr Gly Cys Met Val Gln
85 90 95

Phe Tyr Phe His Phe Ser Leu Gly Ser Thr Ser Phe Leu Ile Leu Thr
100 105 110

Asp Met Ala Leu Asp Arg Phe Val Ala Ile Cys His Pro Leu Arg Tyr
115 120 125

Gly Thr Leu Met Ser Arg Ala Met Cys Val Gln Leu Ala Gly Ala Ala
130 135 140

Trp Ala Ala Pro Phe Leu Ala Met Val Pro Thr Val Leu Ser Arg Ala
145 150 155 160

His Leu Asp Tyr Cys His Gly Asp Val Ile Asn His Phe Phe Cys Asp
165 170 175

Asn Glu Pro Leu Leu Gln Leu Ser Cys Ser Asp Thr Arg Leu Leu Glu
180 185 190

Phe Trp Asp Phe Leu Met Ala Met Thr Phe Val Leu Ser Ser Phe Leu
195 200 205

Val Thr Leu Ile Ser Tyr Gly Tyr Ile Val Thr Thr Val Leu Arg Ile
210 215 220

Pro Ser Ala Ser Ser Cys Gln Lys Ala Phe Ser Thr Cys Gly Ser His
225 230 235 240

Leu Thr Leu Val Phe Ile Gly Tyr Ser Ser Thr Ile Phe Leu Tyr Val
245 250 255

Arg Pro Gly Lys Ala His Ser Val Gln Val Arg Lys Val Val Ala Leu
260 265 270

Val Thr Ser Val Leu Thr Pro Phe Leu Asn Pro Phe Ile Leu Thr Phe
275 280 285

Cys Asn Gln Thr Val Lys Thr Val Leu Gln Gly Gln Met Gln Arg Leu
290 295 300

Lys Gly Leu Cys Lys Ala Gln
305 310

<210> 5
<211> 971
<212> DNA
<213> Homo sapiens

<400> 5
ccccatactg tggatcatgg caaggcacaa tggatgaggca gcccctccgaa tttgtccctct 60
tgggccttctc ctcctttgtt gagctgcagg cccttctgtt tgcccccttc ctcatgtctt 120
atcttctcgc cttcatggga aacaccatca tcatagtttat ggtcatagct gacacccacc 180
tacatacacc catgtacttc ttccctggca atttttccct gttggagatc ttggtaacca 240
tgactgcagt gcccaggatg ctctcagacc tggatgtccc ccacaaagtc attaccttca 300
ctggctgcat gttccagttc tacttccact ttcccttggg gtccacactcc ttccctcatcc 360
tgacagacat ggcccttgtat cgctttgtgg ccatctgcac cccactgcgc tatggcaactc 420
tgatgagccg ggctatgtgt gtccagctgg ctggggctgc ctggcagct cctttccctag 480
ccatggtacc cactgtcctc tcccgagctc atcttgattt ctggcatggc gacgtcatca 540
accacttctt ctgtgacaat gaacctctcc tgcagttgtc atgctctgac actcgccctgt 600
tggaattctg ggactttctg atggccttga cctttgtctt cagctccttc ctggtgaccc 660
tcatctccta tggctacata gtgaccactg tgctgcggat cccctctgc agcagctgcc 720
agaaggcttt ctccacttgc gggcttcacc tcacactgtt ctgcattggc tacagtagta 780
ccatcttctt gtatgtcagg cctggcaaaag ctcactctgt gcaagtcagg aaggtcgtgg 840
ccttgggtgac ttccatgttctc acccccttcc tcaatccctt tatccttacc ttctgcaatc 900
agacagttaa aacagtgcata cagggcaga tgcagaggct gaaaggcctt tgcaaggcac 960
aatgatgagc c 971

<210> 6
<211> 311
<212> PRT
<213> Homo sapiens

<400> 6
Met Met Ser Gln Pro Ser Glu Phe Val Leu Leu Gly Phe Ser Ser Phe
1 5 10 15

Gly Glu Leu Gln Ala Leu Leu Tyr Gly Pro Phe Leu Met Leu Tyr Leu
20 25 30

Leu Ala Phe Met Gly Asn Thr Ile Ile Ile Val Met Val Ile Ala Asp
35 40 45

Thr His Leu His Thr Pro Met Tyr Phe Phe Leu Gly Asn Phe Ser Leu
50 55 60

Leu Glu Ile Leu Val Thr Met Thr Ala Val Pro Arg Met Leu Ser Asp
65 70 75 80

Leu Leu Val Pro His Lys Val Ile Thr Phe Thr Gly Cys Met Val Gln
85 90 95

Phe Tyr Phe His Phe Ser Leu Gly Ser Thr Ser Phe Leu Ile Leu Thr
 100 105 110
 Asp Met Ala Leu Asp Arg Phe Val Ala Ile Cys His Pro Leu Arg Tyr
 115 120 125
 Gly Thr Leu Met Ser Arg Ala Met Cys Val Gln Leu Ala Gly Ala Ala
 130 135 140
 Trp Ala Ala Pro Phe Leu Ala Met Val Pro Thr Val Leu Ser Arg Ala
 145 150 155 160
 His Leu Asp Tyr Cys His Gly Asp Val Ile Asn His Phe Phe Cys Asp
 165 170 175
 Asn Glu Pro Leu Leu Gln Leu Ser Cys Ser Asp Thr Arg Leu Leu Glu
 180 185 190
 Phe Trp Asp Phe Leu Met Ala Leu Thr Phe Val Leu Ser Ser Phe Leu
 195 200 205
 Val Thr Leu Ile Ser Tyr Gly Tyr Ile Val Thr Thr Val Leu Arg Ile
 210 215 220
 Pro Ser Ala Ser Ser Cys Gln Lys Ala Phe Ser Thr Cys Gly Ser His
 225 230 235 240
 Leu Thr Leu Val Phe Ile Gly Tyr Ser Ser Thr Ile Phe Leu Tyr Val
 245 250 255
 Arg Pro Gly Lys Ala His Ser Val Gln Val Arg Lys Val Val Ala Leu
 260 265 270
 Val Thr Ser Val Leu Thr Pro Phe Leu Asn Pro Phe Ile Leu Thr Phe
 275 280 285
 Cys Asn Gln Thr Val Lys Thr Val Leu Gln Gly Gln Met Gln Arg Leu
 290 295 300
 Lys Gly Leu Cys Lys Ala Gln
 305 310

<210> 7
 <211> 992
 <212> DNA
 <213> Homo sapiens

<400> 7
 ctgtcttttg tttctttgc atgcagggcc ccatactgtg gatcatggca aatctgagcc 60
 agccctccga atttgcctc ttgggcttct cctccttgg tgagctgcag gcccctctgt 120
 atggccccctt cctcatgctt tatcttctcg cttcatggg aaacaccatc atcatagtt 180
 tggtcatagc tgacaccac ctagatacac ccatgtactt cttcctggc aattttccc 240
 tgctggagat cttggtaacc atgactgcag tgcccaggat gctctcagac ctgttggtcc 300
 cccacaaagt cattacctc actgctgca tggccagat ctactccac tttccctgg 360
 ggtccacctc cttcctcatc ctgacagaca tggccctga tcgcttgtg gccatctgcc 420
 acccaactgcg ctatggcact ctgatgagcc gggctatgtg tgtccagctg gctggggctg 480

cctggcagc tccttccta gccatggta ccaactgtcct ctcccgagct catcttgatt 540
actgccatgg cgacgtcatc aaccacttct tctgtgacaa tgaacctcctc ctgcagttgt 600
catgtctga cactcgccctg ttgaaattct gggacttct gatggccttg acctttgtcc 660
tcagctcctt cctggtgacc ctcatctcct atggctacat agtaccact gtgctgcgga 720
tcccctctgc cagcagctgc cagaaggctt tctccacttg cgggtctcac ctcacactgg 780
tcttcatcggt ctacagtagt accatcttc tctatgtcag gcctggcaaa gctcaactctg 840
tgcaagttag gaaggcgtg gccttggtga cttcagttct cacccctt ctaatccct 900
ttatccttac cttctgcaat cagacagttt aaacagtgtc acagggcag atgcagaggc 960
tgaaaggcct ttgcaaggca caatgatgag cc 992

<210> 8

<211> 327

<212> PRT

<213> Homo sapiens

<400> 8

Val Phe Cys Phe Ser Cys Met Gln Gly Pro Ile Leu Trp Ile Met Ala
1 5 10 15

Asn Leu Ser Gln Pro Ser Glu Phe Val Leu Leu Gly Phe Ser Ser Phe
20 25 30

Gly Glu Leu Gln Ala Leu Leu Tyr Gly Pro Phe Leu Met Leu Tyr Leu
35 40 45

Leu Ala Phe Met Gly Asn Thr Ile Ile Ile Val Met Val Ile Ala Asp
50 55 60

Thr His Leu His Thr Pro Met Tyr Phe Phe Leu Gly Asn Phe Ser Leu
65 70 75 80

Leu Glu Ile Leu Val Thr Met Thr Ala Val Pro Arg Met Leu Ser Asp
85 90 95

Leu Leu Val Pro His Lys Val Ile Thr Phe Thr Gly Cys Met Val Gln
100 105 110

Phe Tyr Phe His Phe Ser Leu Gly Ser Thr Ser Phe Leu Ile Leu Thr
115 120 125

Asp Met Ala Leu Asp Arg Phe Val Ala Ile Cys His Pro Leu Arg Tyr
130 135 140

Gly Thr Leu Met Ser Arg Ala Met Cys Val Gln Leu Ala Gly Ala Ala
145 150 155 160

Trp Ala Ala Pro Phe Leu Ala Met Val Pro Thr Val Leu Ser Arg Ala
165 170 175

His Leu Asp Tyr Cys His Gly Asp Val Ile Asn His Phe Phe Cys Asp
180 185 190

Asn Glu Pro Leu Leu Gln Leu Ser Cys Ser Asp Thr Arg Leu Leu Glu
195 200 205

Phe Trp Asp Phe Leu Met Ala Leu Thr Phe Val Leu Ser Ser Phe Leu

210	215	220
Val Thr Leu Ile Ser Tyr Gly Tyr Ile Val Thr Thr Val Leu Arg Ile		
225	230	235
Pro Ser Ala Ser Ser Cys Gln Lys Ala Phe Ser Thr Cys Gly Ser His		
240	245	250
Leu Thr Leu Val Phe Ile Gly Tyr Ser Ser Thr Ile Phe Leu Tyr Val		
255	260	265
Arg Pro Gly Lys Ala His Ser Val Gln Val Arg Lys Val Val Ala Leu		
270	275	280
Val Thr Ser Val Leu Thr Pro Phe Leu Asn Pro Phe Ile Leu Thr Phe		
285	290	295
Cys Asn Gln Thr Val Lys Thr Val Leu Gln Gly Gln Met Gln Arg Leu		
300	305	310
Lys Gly Leu Cys Lys Ala Gln		
320	325	

<210> 9
 <211> 971
 <212> DNA
 <213> Homo sapiens

<400> 9
 tgcaaggccc catactgtgg atcatggcaa atctgagccaa gcccctccaa tttgtcctct 60
 tgggcttctc ctcccttggg gagctgcagg cccttctgtt tggcccttc ctcatgcttt 120
 atcttctcgc cttcatgggaa aacaccatca tcatagttat ggtcatagct gacaccacc 180
 tacatacacc catgtacttc ttccctggca attttcctt gctggagatc ttggtaacca 240
 tgactgcagt gcccaggatg ctctcagacc tgggtgtccc ccacaaagtc attacccatca 300
 ctggctgcat ggtccagttc tactccact ttcccttggg gtccacccctt ttcctcatcc 360
 tgacagacat ggcccttgat cgctttgtgg ccatctgcca cccactgcgc tatggcactc 420
 tggatggccg ggctatgtgt gtccagctgg ctggggctgc ctggcagct ccttccttag 480
 ccatgttacc cactgtcctc tcccgagctc atcttgatca ctgcccattgc gacgtcatta 540
 accacttctt ctgtgacaat gaaaccttcc tgcagggttc atgctctgac actccctgt 600
 tggaaattctg ggactttctg atggcttga cttttgtcctt cagctccctt ctgggtaccc 660
 tcatctcttca tggctacata gtgaccactg tgctgcggat cccctctgccc agcagctgcc 720
 agaaggcttt ctccacttgc gggctcacc tcacactggat cttcatccgc tacagtagta 780
 ccatctttctt gtatgtcagg cctggcaaag ctcactctgt gcaagtcagg aaggtcgtgg 840
 ctttgggtgac ttcaaggtttcc acccccttcc tcaatccctt tattccttacc ttctgcaatc 900
 agacagttaa aacagtgtca caggggcaga tgcagaggctt gaaaggcctt tgcaaggcac 960
 aatgtatgac 971

<210> 10
 <211> 313
 <212> PRT
 <213> Homo sapiens

<400> 10
 Met Ala Asn Leu Ser Gln Pro Ser Glu Phe Val Leu Leu Gly Phe Ser
 1 5 10 15

Ser Phe Gly Glu Leu Gln Ala Leu Leu Tyr Gly Pro Phe Leu Met Leu
 20 25 30

 Tyr Leu Leu Ala Phe Met Gly Asn Thr Ile Ile Ile Val Met Val Ile
 35 40 45

 Ala Asp Thr His Leu His Thr Pro Met Tyr Phe Phe Leu Gly Asn Phe
 50 55 60

 Ser Leu Leu Glu Ile Leu Val Thr Met Thr Ala Val Pro Arg Met Leu
 65 70 75 80

 Ser Asp Leu Leu Val Pro His Lys Val Ile Thr Phe Thr Gly Cys Met
 85 90 95

 Val Gln Phe Tyr Phe His Phe Ser Leu Gly Ser Thr Ser Phe Leu Ile
 100 105 110

 Leu Thr Asp Met Ala Leu Asp Arg Phe Val Ala Ile Cys His Pro Leu
 115 120 125

 Arg Tyr Gly Thr Leu Met Ser Arg Ala Met Cys Val Gln Leu Ala Gly
 130 135 140

 Ala Ala Trp Ala Ala Pro Phe Leu Ala Met Val Pro Thr Val Leu Ser
 145 150 155 160

 Arg Ala His Leu Asp Tyr Cys His Gly Asp Val Ile Asn His Phe Phe
 165 170 175

 Cys Asp Asn Glu Pro Leu Leu Gln Leu Ser Cys Ser Asp Thr Arg Leu
 180 185 190

 Leu Glu Phe Trp Asp Phe Leu Met Val Leu Thr Phe Val Leu Ser Ser
 195 200 205

 Phe Leu Val Thr Leu Ile Ser Tyr Gly Tyr Ile Val Thr Thr Val Leu
 210 215 220

 Arg Ile Pro Ser Ala Ser Ser Cys Gln Lys Ala Phe Ser Thr Cys Gly
 225 230 235 240

 Ser His Leu Thr Leu Val Phe Ile Gly Tyr Ser Ser Thr Ile Phe Leu
 245 250 255

 Tyr Val Arg Pro Gly Lys Ala His Ser Val Gln Val Arg Lys Val Val
 260 265 270

 Ala Leu Val Thr Ser Val Leu Thr Pro Phe Leu Asn Pro Phe Ile Leu
 275 280 285

 Thr Phe Cys Asn Gln Thr Val Lys Thr Val Leu Gln Gly Gln Met Gln
 290 295 300

 Arg Leu Lys Gly Leu Cys Lys Ala Gln
 305 310

<210> 11
<211> 992
<212> DNA
<213> Homo sapiens

<400> 11
ctgttcttgc tttctcttgc atgcaaggcc ccatactgtg gatcatggca aatctgagcc 60
agccctccga atttgtcctc ttggccttct cctccttgg tgagctgcag gcccttctgt 120
atggccctt cctcatgttt tatcttctcg cttcatggg aaacaccatc atcatagtt 180
tggcatagc tgacacccac ctacatacac ccatgtactt cttcttggc aattttccc 240
tgctggagat cttggtaacc atgactgcag tgcccaggat gctctcagac ctgttggtcc 300
cccacaaagt cattacctc actggctgca tggccctgtt ctacttccac tttccctgg 360
ggtcoacctc cttccatc ctgacagaca tggccctgtt tcgcttgc 420
acccactgctg ctatggact ctgatgagcc gggctatgtg tgccagctg gctgggctg 480
cctggcagc tcctttccat gccatggtac ccactgtcct ctcccggact catcttgatt 540
actgccccatgg cgacgtcatt aaccacttct tctgtgacaa tgaaccttc ctgcagttgt 600
catgtctga cactcgccctg ttgaaattct gggacttct gatggcttg acctttgtcc 660
tcagtcctt cttgggtgacc ctcatctctt atggctacat agtggaccact gtgctgcgga 720
tcccctctgc cagcagctgc cagaaggctt tctccacttgc cgggtctcac ctcacactgg 780
tcttccatgg ctacagtagt accatcttc tggatgtcag gcctggcaaa gctcaacttg 840
tgcaagtcag gaagggtcggtg gccttggta cttcagttct cacccctt ctcaatccct 900
ttatccttac cttctgcaat cagacagtta aaacagtct acagggcag atgttagagggc 960
tgaaaggcct ttgcaaggca caatgtgag cc 992

<210> 12
<211> 311
<212> PRT
<213> Homo sapiens

<400> 12
Met Gln Gly Pro Ile Leu Trp Ile Met Ala Asn Leu Ser Gln Pro Ser
1 5 10 15
Glu Phe Val Leu Leu Gly Phe Ser Ser Phe Gly Glu Leu Gln Ala Leu
20 25 30
Leu Tyr Gly Pro Phe Leu Met Leu Tyr Leu Leu Ala Phe Met Gly Asn
35 40 45
Thr Ile Ile Ile Val Met Val Ile Ala Asp Thr His Leu His Thr Pro
50 55 60
Met Tyr Phe Phe Leu Gly Asn Phe Ser Leu Leu Glu Ile Leu Val Thr
65 70 75 80
Met Thr Ala Val Pro Arg Met Leu Ser Asp Leu Leu Val Pro His Lys
85 90 95
Val Ile Thr Phe Thr Gly Cys Met Val Gln Phe Tyr Phe His Phe Ser
100 105 110
Leu Gly Ser Thr Ser Phe Leu Ile Leu Thr Asp Met Ala Leu Asp Arg
115 120 125

Phe Val Ala Ile Cys His Pro Leu Arg Tyr Gly Thr Leu Met Ser Arg
 130 135 140
 Ala Met Cys Val Gln Leu Ala Gly Ala Ala Trp Ala Ala Pro Phe Leu
 145 150 155 160
 Ala Met Val Pro Thr Val Leu Ser Arg Ala His Leu Asp Tyr Cys His
 165 170 175
 Gly Asp Val Ile Asn His Phe Phe Cys Asp Asn Glu Pro Leu Leu Gln
 180 185 190
 Leu Ser Cys Ser Asp Thr Arg Leu Leu Glu Phe Trp Asp Phe Leu Met
 195 200 205
 Val Leu Thr Phe Val Leu Ser Ser Phe Leu Val Thr Leu Ile Ser Tyr
 210 215 220
 Gly Tyr Ile Val Thr Thr Val Leu Arg Ile Pro Ser Ala Ser Ser Cys
 225 230 235 240
 Gln Lys Ala Phe Ser Thr Cys Gly Ser His Leu Thr Leu Val Phe Ile
 245 250 255
 Gly Tyr Ser Ser Thr Ile Phe Leu Tyr Val Arg Pro Gly Lys Ala His
 260 265 270
 Ser Val Gln Val Arg Lys Val Val Ala Leu Val Thr Ser Val Leu Thr
 275 280 285
 Pro Phe Leu Asn Pro Phe Ile Leu Thr Phe Cys Asn Gln Thr Val Lys
 290 295 300
 Thr Val Leu Gln Gly Gln Met
 305 310

<210> 13
 <211> 314
 <212> PRT
 <213> Mus musculus

<400> 13
 Met Met Asp Asn Leu Ser Ser Ala Thr Glu Phe Cys Leu Leu Gly Phe
 1 5 10 15
 Pro Gly Ser Gln Glu Leu His Tyr Ile Leu Phe Ala Ile Phe Phe Phe
 20 25 30
 Phe Tyr Ser Val Thr Leu Leu Gly Asn Met Val Ile Ile Ile Ile Val
 35 40 45
 Cys Val Asp Lys Arg Leu Gln Ser Pro Met Tyr Phe Phe Leu Gly Asn
 50 55 60
 Leu Ser Leu Leu Glu Ile Leu Val Thr Thr Ile Val Pro Leu Met
 65 70 75 80

Leu Trp Gly Leu Leu Leu Pro Gly Lys Gln Thr Ile Ser Leu Asn Gly
 85 90 95
 Cys Ile Ala Gln Leu Phe Leu Tyr Leu Ala Leu Gly Thr Thr Glu Phe
 100 105 110
 Ala Val Leu Gly Ala Met Ala Val Asp Arg Tyr Val Ala Val Cys Asn
 115 120 125
 Pro Leu Arg Tyr Ser Val Ile Met Asn Ser Arg Thr Cys Ile Trp Val
 130 135 140
 Val Met Val Ser Trp Met Phe Gly Phe Leu Ser Glu Ile Trp Pro Val
 145 150 155 160
 Tyr Ala Thr Phe Gln Phe Thr Phe Cys Lys Ser Asn Leu Leu Asp His
 165 170 175
 Phe Tyr Cys Asp Arg Gly Gln Leu Leu Lys Leu Ser Cys Asn Glu Thr
 180 185 190
 Phe Leu Thr Glu Phe Ile Leu Phe Ile Met Ala Ile Phe Ile Ile Val
 195 200 205
 Gly Ser Leu Ile Pro Thr Ile Val Ser Tyr Thr Tyr Ile Ile Ser Thr
 210 215 220
 Ile Leu Lys Ile Pro Ser Ala Ser Gly Arg Lys Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Ala Ser His Phe Thr Phe Val Val Ile Gly Tyr Gly Thr Cys Leu
 245 250 255
 Phe Leu Tyr Val Lys Pro Lys Gln Thr Gln Ala Ala Glu Tyr Asn Arg
 260 265 270
 Val Ala Ser Leu Leu Val Ser Val Val Thr Pro Phe Leu Asn Pro Phe
 275 280 285
 Ile Phe Thr Leu Arg Asn Asp Lys Val Lys Glu Ala Leu Arg Asp Gly
 290 295 300
 Val Lys Arg Cys Cys Leu Leu Leu Arg Asp
 305 310
 <210> 14
 <211> 313
 <212> PRT
 <213> Mus musculus
 <400> 14
 Met Ala Asn Ser Thr Thr Val Thr Glu Phe Ile Leu Leu Gly Leu Ser
 1 5 10 15
 Asp Ala Cys Glu Leu Gln Val Leu Ile Phe Leu Gly Phe Leu Leu Thr

20	25	30
Tyr Phe Leu Ile Leu Leu Gly Asn Phe Leu Ile Ile Phe Ile Thr Leu		
35	40	45
Val Asp Arg Arg Leu Tyr Thr Pro Met Tyr Tyr Phe Leu Arg Asn Phe		
50	55	60
Ala Met Leu Glu Ile Trp Phe Thr Ser Val Ile Phe Pro Lys Met Leu		
65	70	75
Thr Asn Ile Ile Thr Gly His Lys Thr Ile Ser Leu Leu Gly Cys Phe		
85	90	95
Leu Gln Ala Phe Leu Tyr Phe Phe Leu Gly Thr Thr Glu Phe Phe Leu		
100	105	110
Leu Ala Val Met Ser Phe Asp Arg Tyr Val Ala Ile Cys Asn Pro Leu		
115	120	125
Arg Tyr Ala Thr Ile Met Ser Lys Arg Val Cys Val Gln Leu Val Phe		
130	135	140
Cys Ser Trp Met Ser Gly Leu Leu Leu Ile Ile Val Pro Ser Ser Ile		
145	150	155
160		
Val Phe Gln Gln Pro Phe Cys Gly Pro Asn Ile Ile Asn His Phe Phe		
165	170	175
Cys Asp Asn Phe Pro Leu Met Glu Leu Ile Cys Ala Asp Thr Ser Leu		
180	185	190
Val Glu Phe Leu Gly Phe Val Ile Ala Asn Phe Ser Leu Leu Gly Thr		
195	200	205
Leu Ala Val Thr Ala Thr Cys Tyr Gly His Ile Leu Tyr Thr Ile Leu		
210	215	220
His Ile Pro Ser Ala Lys Glu Arg Lys Lys Ala Phe Ser Thr Cys Ser		
225	230	235
240		
Ser His Ile Ile Val Val Ser Leu Phe Tyr Gly Ser Cys Ile Phe Met		
245	250	255
Tyr Val Arg Ser Gly Lys Asn Gly Gln Gly Glu Asp His Asn Lys Val		
260	265	270
Val Ala Leu Leu Asn Thr Val Val Thr Pro Thr Leu Asn Pro Phe Ile		
275	280	285
Tyr Thr Leu Arg Asn Lys Gln Val Lys Gln Val Phe Arg Glu His Val		
290	295	300
Ser Lys Phe Gln Lys Phe Ser Gln Thr		
305	310	

<210> 15
<211> 317
<212> PRT
<213> Mus musculus

<400> 15
Met Glu Gly Lys Asn Gln Thr Ala Pro Ser Glu Phe Ile Ile Leu Gly
1 5 10 15
Phe Asp His Leu Asn Glu Leu Gln Tyr Leu Leu Phe Thr Ile Phe Phe
20 25 30
Leu Thr Tyr Ile Cys Thr Leu Gly Gly Asn Val Phe Ile Ile Val Val
35 40 45
Thr Ile Ala Asp Ser His Leu His Thr Pro Met Tyr Tyr Phe Leu Gly
50 55 60
Asn Leu Ala Leu Ile Asp Ile Cys Tyr Thr Thr Asn Val Pro Gln
65 70 75 80
Met Met Val His Leu Leu Ser Glu Lys Lys Ile Ile Ser Tyr Gly Gly
85 90 95
Cys Val Thr Gln Leu Phe Ala Phe Ile Phe Phe Val Gly Ser Glu Cys
100 105 110
Leu Leu Leu Ala Ala Met Ala Tyr Asp Arg Tyr Ile Ala Ile Cys Lys
115 120 125
Pro Leu Arg Tyr Ser Phe Ile Met Asn Lys Ala Leu Cys Ser Trp Leu
130 135 140
Ala Ala Ser Cys Trp Thr Cys Gly Phe Leu Asn Ser Val Leu His Thr
145 150 155 160
Val Leu Thr Phe His Leu Pro Phe Cys Gly Asn Asn Gln Ile Asn Tyr
165 170 175
Phe Phe Cys Asp Ile Pro Pro Leu Leu Ile Leu Ser Cys Gly Asp Thr
180 185 190
Ser Leu Asn Glu Leu Ala Leu Leu Ser Ile Gly Ile Leu Ile Gly Trp
195 200 205
Thr Pro Phe Leu Cys Ile Ile Leu Ser Tyr Leu Tyr Ile Ile Ser Thr
210 215 220
Ile Leu Arg Ile Arg Ser Ser Glu Gly Arg Gln Lys Ala Phe Ser Thr
225 230 235 240
Cys Ala Ser His Leu Leu Ile Val Ile Leu Tyr Tyr Gly Ser Ala Ile
245 250 255
Phe Thr Tyr Val Arg Pro Ile Ser Ser Tyr Ser Leu Glu Lys Asp Arg
260 265 270

Leu Ile Ser Val Leu Tyr Ser Val Phe Thr Pro Met Leu Asn Pro Ile
275 280 285

Ile Tyr Ala Leu Arg Asn Lys Asp Ile Lys Glu Ala Val Lys Ala Ile
290 295 300

Gly Arg Lys Trp Gln Pro Pro Val Phe Ser Ser Asp Met
305 310 315

<210> 16

<211> 314

<212> PRT

<213> Mus musculus

<400> 16

Met Leu Asp Met Asn Ile Thr Leu Val Ser Glu Phe Ile Leu Val Gly
1 5 10 15

Phe Pro Thr Ala Pro Trp Leu Gln Ile Leu Leu Phe Phe Ile Phe Leu
20 25 30

Val Val Tyr Met Leu Ile Ile Ala Glu Asn Leu Val Ile Ile Phe Thr
35 40 45

Val Trp Ser Thr Gly Ser Leu His Lys Pro Met Tyr Tyr Phe Leu Ser
50 55 60

Ser Met Ser Phe Leu Glu Ile Trp Tyr Val Ser Val Thr Val Pro Lys
65 70 75 80

Met Leu Asp Gly Phe Leu Leu Gln Arg Arg His Ile Ser Phe Thr Gly
85 90 95

Cys Met Thr Gln Leu Tyr Phe Phe Ile Ser Leu Ala Cys Thr Glu Cys
100 105 110

Val Leu Leu Ala Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys His
115 120 125

Pro Leu Arg Tyr Pro Val Ile Met Thr Thr Val Tyr Cys Met Gln Leu
130 135 140

Met Ala Leu Ser Tyr Phe Ser Gly Phe Met Val Ser Val Val Lys Val
145 150 155 160

Tyr Phe Ile Ser His Val Ala Phe Cys Gly Ser Asn Val Met Asn His
165 170 175

Phe Phe Cys Asp Ile Ser Pro Ile Leu Lys Leu Ala Cys Lys Asp Met
180 185 190

Ser Thr Ala Glu Leu Val Asp Phe Ala Leu Ala Ile Val Ile Leu Val
195 200 205

Phe Pro Leu Ile Thr Thr Val Leu Ser Tyr Val Tyr Ile Val Ser Thr
210 215 220

Ile Leu Arg Ile Pro Ser Thr Gln Gly Arg Lys Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Ala Ser His Leu Thr Val Val Ile Ile Tyr Tyr Thr Ala Met Ile
 245 250 255
 Phe Met Tyr Val Arg Pro Arg Ala Ile Ala Ser Phe Asn Ser Asn Lys
 260 265 270
 Leu Ile Ser Ala Val Tyr Ala Val Leu Thr Pro Met Leu Asn Pro Phe
 275 280 285
 Ile Tyr Cys Leu Arg Asn Arg Glu Val Lys Asp Ala Ile Lys Lys Thr
 290 295 300
 Leu Gly Gly Gly Gln Cys Phe Leu Leu Cys
 305 310

<210> 17
 <211> 280
 <212> PRT
 <213> Homo sapiens

<400> 17
 Met Leu Leu Gly Asn Leu Ala Ile Ile Ser Phe Ile Cys Leu Asp Ser
 1 5 10 15
 Arg Leu His Ser Pro Met Tyr Phe Phe Leu Cys Asn Phe Ser Leu Met
 20 25 30
 Glu Met Val Val Thr Ser Thr Val Val His Arg Met Leu Ala Asp Leu
 35 40 45
 Leu Ser Thr His Lys Thr Met Ser Leu Ala Lys Cys Leu Thr Gln Ser
 50 55 60
 Phe Phe Tyr Phe Ser Leu Gly Ser Ala Asn Phe Leu Ile Leu Met Val
 65 70 75 80
 Met Ala Phe Asp Arg Tyr Val Ala Ile Cys His Pro Leu Arg Tyr Pro
 85 90 95
 Thr Ile Thr Asn Gly Pro Val Cys Val Lys Leu Val Val Ala Cys Trp
 100 105 110
 Val Val Gly Phe Leu Ser Ile Val Ser Pro Thr Leu Gln Lys Thr Arg
 115 120 125
 Leu Trp Phe Cys Gly Pro Asn Ile Ile Gly His Tyr Phe Cys Asp Ser
 130 135 140
 Ala Pro Leu Leu Lys Leu Ala Cys Ser Asp Thr Arg His Ile Glu Arg
 145 150 155 160
 Met Asp Leu Phe Leu Ser Leu Leu Phe Val Leu Thr Thr Met Leu Leu

	165		170		175										
Ile	Ile	Leu	Ser	Tyr	Ile	Leu	Ile	Val	Ala	Ala	Val	Leu	His	Ile	Pro
				180				185							
Ser	Ser	Ser	Gly	Cys	Gln	Lys	Ala	Phe	Ser	Thr	Cys	Ala	Ser	His	Leu
				195				200							
Thr	Val	Val	Val	Leu	Gly	Tyr	Gly	Ser	Ala	Ile	Phe	Ile	Tyr	Val	Arg
				210			215								
Pro	Gly	Lys	Gly	His	Ser	Thr	Tyr	Leu	Asn	Lys	Ala	Val	Ala	Met	Val
				225			230			235					240
Thr	Ala	Met	Val	Thr	Pro	Phe	Leu	Asn	Pro	Phe	Ile	Phe	Thr	Phe	Arg
				245			250							255	
Asn	Glu	Lys	Val	Lys	Glu	Val	Ile	Glu	Asp	Val	Thr	Lys	Arg	Ile	Phe
				260			265							270	
Leu	Gly	Asp	Pro	Ala	Ala	Cys	Arg								
				275			280								
<210>	18														
<211>	254														
<212>	PRT														
<213>	Homo sapiens														
<400>	18														
Gly	Asn	Leu	Leu	Val	Ile	Leu	Val	Ile	Leu	Arg	Thr	Lys	Lys	Leu	Arg
					1		5		10						15
Thr	Pro	Thr	Asn	Ile	Phe	Leu	Leu	Asn	Leu	Ala	Val	Ala	Asp	Leu	Leu
					20			25						30	
Phe	Leu	Leu	Thr	Leu	Pro	Pro	Trp	Ala	Leu	Tyr	Tyr	Leu	Val	Gly	Gly
					35			40						45	
Asp	Trp	Val	Phe	Gly	Asp	Ala	Leu	Cys	Lys	Leu	Val	Gly	Ala	Leu	Phe
					50			55						60	
Val	Val	Asn	Gly	Tyr	Ala	Ser	Ile	Leu	Leu	Leu	Thr	Ala	Ile	Ser	Ile
					65			70			75			80	
Asp	Arg	Tyr	Leu	Ala	Ile	Val	His	Pro	Leu	Arg	Tyr	Arg	Arg	Ile	Arg
						85			90					95	
Thr	Pro	Arg	Arg	Ala	Lys	Val	Leu	Ile	Leu	Leu	Val	Trp	Val	Leu	Ala
					100			105						110	
Leu	Leu	Leu	Ser	Leu	Pro	Pro	Leu	Leu	Phe	Ser	Trp	Leu	Arg	Thr	Val
					115			120						125	
Glu	Glu	Gly	Asn	Thr	Thr	Val	Cys	Leu	Ile	Asp	Phe	Pro	Glu	Glu	Ser
					130			135						140	

Val Lys Arg Ser Tyr Val Leu Leu Ser Thr Leu Val Gly Phe Val Leu
145 150 155 160

Pro Leu Leu Val Ile Leu Val Cys Tyr Thr Arg Ile Leu Arg Thr Leu
165 170 175

Arg Lys Arg Ala Arg Ser Gln Arg Ser Leu Lys Arg Arg Ser Ser Ser
180 185 190

Glu Arg Lys Ala Ala Lys Met Leu Leu Val Val Val Val Phe Val
195 200 205

Leu Cys Trp Leu Pro Tyr His Ile Val Leu Leu Asp Ser Leu Cys
210 215 220

Leu Leu Ser Ile Trp Arg Val Leu Pro Thr Ala Leu Leu Ile Thr Leu
225 230 235 240

Trp Leu Ala Tyr Val Asn Ser Cys Leu Asn Pro Ile Ile Tyr
245 250

<210> 19

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:consensus
sequence

<220>

<221> VARIANT

<222> (1)

<223> Wherein Xaa is G or S or T or A or L or I or V or
M or F or Y or W or C

<220>

<221> VARIANT

<222> (2)

<223> Wherein Xaa is G or S or T or A or N or C or P or
D or E

<220>

<221> VARIANT

<222> (3)

<223> Wherein Xaa is not E or D or P or K or R or H

<220>

<221> VARIANT

<222> (4)

<223> Wherein Xaa is any amino acid as defined in the
specification

<220>

<221> VARIANT

<222> (5)

<223> Wherein Xaa is any amino acid as defined in the specification

<220>

<221> VARIANT

<222> (6)

<223> Wherein Xaa is L or I or V or M or N or Q or G or A

<220>

<221> VARIANT

<222> (7)

<223> Wherein Xaa is any amino acid as defined in the specification

<220>

<221> VARIANT

<222> (8)

<223> Wherein Xaa is any amino acid as defined in the specification

<220>

<221> VARIANT

<222> (9)

<223> Wherein Xaa is L or I or V or M or F or T

<220>

<221> VARIANT

<222> (14)

<223> Wherein Xaa is F or Y or W or C or S or H

<220>

<221> VARIANT

<222> (15)

<223> Wherein Xaa is any amino acid as defined in the specification

<220>

<221> VARIANT

<222> (16)

<223> Wherein Xaa is any amino acid as defined in the specification

<220>

<221> VARIANT

<222> (17)

<223> Wherein Xaa is L or I or V or M

<220>

<221> VARIANT

<222> (10)

<223> Wherein Xaa is G or S or T or A or N or C

<220>

<221> VARIANT

<222> (11)

<223> Wherein Xaa is L or I or V or M or F or Y or W or

S or T or A or C

<220>

<221> VARIANT

<222> (12)

<223> Wherein Xaa is D or E or N or H

<400> 19

Xaa Arg Xaa Xaa Xaa
1 5 10 15

<210> 20

<211> 990

<212> DNA

<213> Homo sapiens

<400> 20

gactaaatga tggacaacca ctctagtgcc actgaattcc accttctagg cttccctggg 60
tcccaaggac tacaccacat tttttgtct atattcttt tcttcttattt agtgacatta 120
atgggaaaca cggtcatcat tggattgtc tggatggata aacgtctgca gtcccccattg 180
tatttcttcc tcagccacct ctctaccctg gagatctgg tcacaaccat aattgtcccc 240
atgatgcttt ggggattgtctt ctccctggga tgcagacagt atcttctt acatgtatcg 300
ctcaactttt cctgtgggac catggagttt gcattactt gaggatggc tggaccgt 360
tatgtggctgt tggtaaccc tttgaggtac aacatcattt tgaacagcag tacctgtatt 420
tgggtggtaa tagtgcattt ggtgttttga tttcttctt aaatctggcc catctatgcc 480
acatttcaacttccg caaatcaaataat tcattagacc attttactt tgaccgaggg 540
caatttgcataaactgtcccg cgataacact cttctcacag agtttactt tttcttaatg 600
gtgtttttta ttctcatttgg ttcttgcac cttctcacag agtttactt tttcttaatg 660
tcaccatcc tcaagatccc gtcagccctt cttacgattt tctcccttacac ctacatttac 660
tcccacttca cctgtgtgtt gattggctat ggcagctgtt tgttctctt cgtgaaaccc 720
aagcaaacac agggagtttga gtacaataag atagtttctt tggtgtttc tggatggtaacc 780
cccttccttg aatccttca tcttactt tggatggata aagtcaaaaga ggcctccga 840
gatggatgtt aacgctgttca tcaacttcctg aagatttagc tggtctgtaa gtcagtttta 900
gggtgtccaa gctcagggt taattattaa 960
990

<210> 21

<211> 310

<212> PRT

<213> Homo sapiens

<400> 21

Met Met Asp Asn His Ser Ser Ala Thr Glu Phe His Leu Leu Gly Phe
1 5 10 15

Pro Gly Ser Gln Gly Leu His His Ile Leu Phe Ala Ile Phe Phe Phe
20 25 30

Phe Tyr Leu Val Thr Leu Met Gly Asn Thr Val Ile Ile Val Ile Val
35 40 45

Cys Val Asp Lys Arg Leu Gln Ser Pro Met Tyr Phe Phe Leu Ser His
50 55 60

Leu Ser Thr Leu Glu Ile Leu Val Thr Thr Ile Ile Val Pro Met Met
 65 70 75 80
 Leu Trp Gly Leu Leu Phe Leu Gly Cys Arg Gln Tyr Leu Ser Leu His
 85 90 95
 Val Ser Leu Asn Phe Ser Cys Gly Thr Met Glu Phe Ala Leu Leu Gly
 100 105 110
 Val Met Ala Val Asp Arg Tyr Val Ala Val Cys Asn Pro Leu Arg Tyr
 115 120 125
 Asn Ile Ile Met Asn Ser Ser Thr Cys Ile Trp Val Val Ile Val Ser
 130 135 140
 Trp Val Phe Gly Phe Leu Ser Glu Ile Trp Pro Ile Tyr Ala Thr Phe
 145 150 155 160
 Gln Phe Thr Phe Arg Lys Ser Asn Ser Leu Asp His Phe Tyr Cys Asp
 165 170 175
 Arg Gly Gln Leu Leu Lys Leu Ser Cys Asp Asn Thr Leu Leu Thr Glu
 180 185 190
 Phe Ile Leu Phe Leu Met Ala Val Phe Ile Leu Ile Gly Ser Leu Ile
 195 200 205
 Pro Thr Ile Val Ser Tyr Thr Tyr Ile Ile Ser Thr Ile Leu Lys Ile
 210 215 220
 Pro Ser Ala Ser Gly Arg Arg Lys Ala Phe Ser Thr Phe Ala Ser His
 225 230 235 240
 Phe Thr Cys Val Val Ile Gly Tyr Gly Ser Cys Leu Phe Leu Tyr Val
 245 250 255
 Lys Pro Lys Gln Thr Gln Gly Val Glu Tyr Asn Lys Ile Val Ser Leu
 260 265 270
 Leu Val Ser Val Leu Thr Pro Leu Pro Glu Ser Phe His Leu Tyr Ser
 275 280 285
 Ser Asp Asp Lys Val Lys Glu Ala Leu Arg Asp Gly Met Lys Arg Cys
 290 295 300
 Cys Gln Leu Leu Lys Asp
 305 310

<210> 22

<211> 314

<212> PRT

<213> Mus musculus

<400> 22

Met Met Asp Asn Leu Ser Ser Ala Thr Glu Phe Cys Leu Leu Gly Phe

1	5	10	15
Pro Gly Ser Gln Glu Leu His Tyr Ile Leu Phe Ala Ile Phe Phe Phe			
20	25	30	
Phe Tyr Ser Val Thr Leu Leu Gly Asn Met Val Ile Ile Ile Val			
35	40	45	
Cys Val Asp Lys Arg Leu Gln Ser Pro Met Tyr Phe Phe Leu Gly Asn			
50	55	60	
Leu Ser Leu Leu Glu Ile Leu Val Thr Thr Thr Ile Val Pro Leu Met			
65	70	75	80
Leu Trp Gly Leu Leu Pro Gly Lys Gln Thr Ile Ser Leu Asn Gly			
85	90	95	
Cys Ile Ala Gln Leu Phe Leu Tyr Leu Ala Leu Gly Thr Thr Glu Phe			
100	105	110	
Ala Val Leu Gly Ala Met Ala Val Asp Arg Tyr Val Ala Val Cys Asn			
115	120	125	
Pro Leu Arg Tyr Ser Val Ile Met Asn Ser Arg Thr Cys Ile Trp Val			
130	135	140	
Val Met Val Ser Trp Met Phe Gly Phe Leu Ser Glu Ile Trp Pro Val			
145	150	155	160
Tyr Ala Thr Phe Gln Phe Thr Phe Cys Lys Ser Asn Leu Leu Asp His			
165	170	175	
Phe Tyr Cys Asp Arg Gly Gln Leu Leu Lys Leu Ser Cys Asn Glu Thr			
180	185	190	
Phe Leu Thr Glu Phe Ile Leu Phe Ile Met Ala Ile Phe Ile Ile Val			
195	200	205	
Gly Ser Leu Ile Pro Thr Ile Val Ser Tyr Thr Tyr Ile Ile Ser Thr			
210	215	220	
Ile Leu Lys Ile Pro Ser Ala Ser Gly Arg Lys Lys Ala Phe Ser Thr			
225	230	235	240
Cys Ala Ser His Phe Thr Phe Val Val Ile Gly Tyr Gly Thr Cys Leu			
245	250	255	
Phe Leu Tyr Val Lys Pro Lys Gln Thr Gln Ala Ala Glu Tyr Asn Arg			
260	265	270	
Val Ala Ser Leu Leu Val Ser Val Val Thr Pro Phe Leu Asn Pro Phe			
275	280	285	
Ile Phe Thr Leu Arg Asn Asp Lys Val Lys Glu Ala Leu Arg Asp Gly			
290	295	300	
Val Lys Arg Cys Cys Leu Leu Leu Arg Asp			

305

310

<210> 23

<211> 313

<212> PRT

<213> Mus musculus

<400> 23

Met	Ala	Asn	Ser	Thr	Thr	Val	Thr	Glu	Phe	Ile	Leu	Leu	Gly	Leu	Ser
1				5						10				15	

Asp	Ala	Cys	Glu	Leu	Gln	Val	Leu	Ile	Phe	Leu	Gly	Phe	Leu	Leu	Thr
				20				25					30		

Tyr	Phe	Leu	Ile	Leu	Leu	Gly	Asn	Phe	Leu	Ile	Ile	Phe	Ile	Thr	Leu
			35				40					45			

Val	Asp	Arg	Arg	Leu	Tyr	Thr	Pro	Met	Tyr	Tyr	Phe	Leu	Arg	Asn	Phe
				50			55				60				

Ala	Met	Leu	Glu	Ile	Trp	Phe	Thr	Ser	Val	Ile	Phe	Pro	Lys	Met	Leu
	65				70				75				80		

Thr	Asn	Ile	Ile	Thr	Gly	His	Lys	Thr	Ile	Ser	Leu	Leu	Gly	Cys	Phe
			85				90						95		

Leu	Gln	Ala	Phe	Leu	Tyr	Phe	Phe	Leu	Gly	Thr	Thr	Glu	Phe	Phe	Leu
			100				105			110					

Leu	Ala	Val	Met	Ser	Phe	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Asn	Pro	Leu
			115				120				125				

Arg	Tyr	Ala	Thr	Ile	Met	Ser	Lys	Arg	Val	Cys	Val	Gln	Leu	Val	Phe
			130				135			140					

Cys	Ser	Trp	Met	Ser	Gly	Leu	Leu	Ile	Ile	Val	Pro	Ser	Ser	Ile	
	145				150				155				160		

Val	Phe	Gln	Gln	Pro	Phe	Cys	Gly	Pro	Asn	Ile	Ile	Asn	His	Phe	Phe
			165					170				175			

Cys	Asp	Asn	Phe	Pro	Leu	Met	Glu	Leu	Ile	Cys	Ala	Asp	Thr	Ser	Leu
				180				185				190			

Val	Glu	Phe	Leu	Gly	Phe	Val	Ile	Ala	Asn	Phe	Ser	Leu	Leu	Gly	Thr
			195				200				205				

Leu	Ala	Val	Thr	Ala	Thr	Cys	Tyr	Gly	His	Ile	Leu	Tyr	Thr	Ile	Leu
			210			215				220					

His	Ile	Pro	Ser	Ala	Lys	Glu	Arg	Lys	Lys	Ala	Phe	Ser	Thr	Cys	Ser
	225				230				235				240		

Ser	His	Ile	Ile	Val	Val	Ser	Leu	Phe	Tyr	Gly	Ser	Cys	Ile	Phe	Met
			245				250			255					

Tyr Val Arg Ser Gly Lys Asn Gly Gln Gly Glu Asp His Asn Lys Val
260 265 270

Val Ala Leu Leu Asn Thr Val Val Thr Pro Thr Leu Asn Pro Phe Ile
275 280 285

Tyr Thr Leu Arg Asn Lys Gln Val Lys Gln Val Phe Arg Glu His Val
290 295 300

Ser Lys Phe Gln Lys Phe Ser Gln Thr
305 310

<210> 24

<211> 316

<212> PRT

<213> Mus musculus

<400> 24

Met Glu Asn Ile Thr Asn Ile Ser Glu Phe Ile Leu Met Gly Phe Pro
1 5 10 15

Thr Ala Pro Trp Leu Gln Ile Leu Leu Phe Ser Ile Phe Phe Ile Thr
20 25 30

Tyr Val Phe Val Leu Leu Glu Asn Leu Val Ile Ile Leu Thr Val Trp
35 40 45

Val Thr Gly Ser Leu His Lys Pro Met Tyr Tyr Phe Leu Ser Thr Met
50 55 60

Ser Phe Leu Glu Ala Trp Tyr Ile Ser Val Thr Val Pro Lys Met Leu
65 70 75 80

Ala Gly Phe Leu Phe Arg Pro Asn Thr Ile Ser Phe Leu Gly Cys Met
85 90 95

Thr Gln Leu Tyr Phe Phe Met Ser Leu Ala Cys Thr Glu Cys Val Leu
100 105 110

Leu Ala Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Trp Pro Leu
115 120 125

Arg Tyr Pro Val Met Met Thr Thr Gly Phe Cys Val Gln Leu Thr Ile
130 135 140

Ser Ser Trp Val Ser Gly Phe Thr Ile Ser Met Ala Lys Val Tyr Phe
145 150 155 160

Ile Ser Arg Val Ala Phe Cys Gly Asn Asn Val Leu Asn His Phe Phe
165 170 175

Cys Asp Val Ser Pro Ile Leu Lys Leu Ala Cys Met Asn Leu Ser Met
180 185 190

Ala Glu Thr Val Asp Phe Ala Leu Ala Ile Val Ile Leu Ile Phe Pro
195 200 205

Leu Ser Ala Thr Val Leu Ser Tyr Gly Phe Ile Val Ser Thr Val Leu
 210 215 220
 Gln Ile Pro Ser Ala Thr Gly Gln Arg Lys Ala Phe Ser Thr Cys Ala
 225 230 235 240
 Ser His Leu Thr Val Val Val Ile Phe Tyr Thr Ala Val Ile Phe Met
 245 250 255
 Tyr Val Arg Pro Arg Ala Ile Ala Ser Phe Asn Ser Asn Lys Leu Ile
 260 265 270
 Ser Ala Ile Tyr Ala Val Phe Thr Pro Met Leu Asn Pro Ile Ile Tyr
 275 280 285
 Cys Leu Arg Asn Lys Glu Val Lys Asp Ala Ile Arg Lys Thr Ile Ala
 290 295 300
 Gly Gly Arg Ala Pro Ala Leu Gly Glu Ser Ile Ser
 305 310 315

<210> 25
 <211> 316
 <212> PRT
 <213> Mus musculus

<400> 25
 Met Glu Asn Ile Thr Asn Ile Ser Glu Phe Ile Leu Met Gly Phe Pro
 1 5 10 15
 Thr Ala Pro Trp Leu Gln Ile Leu Phe Ser Ile Phe Phe Ile Thr
 20 25 30
 Tyr Val Phe Val Leu Leu Glu Asn Leu Val Ile Ile Leu Thr Val Trp
 35 40 45
 Val Thr Gly Ser Leu His Lys Pro Met Tyr Tyr Phe Leu Ser Thr Met
 50 55 60
 Ser Phe Leu Glu Ala Trp Tyr Ile Ser Val Thr Val Pro Lys Met Leu
 65 70 75 80
 Ala Gly Phe Leu Phe His Pro Asn Thr Ile Ser Phe Leu Gly Cys Met
 85 90 95
 Thr Gln Leu Tyr Phe Phe Met Ser Leu Ala Cys Thr Glu Cys Val Leu
 100 105 110
 Leu Ala Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Trp Pro Leu
 115 120 125
 Arg Tyr Pro Val Met Met Thr Thr Gly Phe Cys Val Gln Leu Thr Ile
 130 135 140
 Ser Ser Trp Val Ser Gly Phe Thr Ile Ser Met Ala Lys Val Tyr Phe

145	150	155	160
Leu Ser Arg Val Ala Phe Cys Gly Asn Asn Val Leu Asn His Phe Phe			
165	170	175	
Cys Asp Val Ser Pro Ile Leu Lys Leu Ala Cys Met Asn Leu Ser Met			
180	185	190	
Ala Glu Thr Val Asp Phe Ala Leu Ala Ile Val Ile Leu Ile Phe Pro			
195	200	205	
Leu Ser Ala Thr Val Leu Ser Tyr Gly Phe Ile Val Ser Thr Val Leu			
210	215	220	
Gln Ile Pro Ser Ala Thr Gly Gln Arg Lys Ala Phe Ser Thr Cys Ala			
225	230	235	240
Ser His Leu Thr Val Val Val Ile Phe Tyr Thr Ala Val Ile Phe Met			
245	250	255	
Tyr Val Arg Pro Arg Ala Ile Ala Ser Phe Asn Ser Asn Lys Leu Ile			
260	265	270	
Ser Ala Ile Tyr Ala Val Phe Thr Pro Met Leu Asn Pro Ile Ile Tyr			
275	280	285	
Cys Leu Arg Asn Lys Glu Val Lys Asp Ala Ile Arg Lys Thr Ile Ala			
290	295	300	
Gly Gly Arg Ala Pro Ala Leu Gly Glu Ser Ile Ser			
305	310	315	
<210> 26			
<211> 314			
<212> PRT			
<213> Mus musculus			
<400> 26			
Met Leu Asp Met Asn Ile Thr Leu Val Ser Glu Phe Ile Leu Val Gly			
1	5	10	15
Phe Pro Thr Ala Pro Trp Leu Gln Ile Leu Leu Phe Phe Ile Phe Leu			
20	25	30	
Val Val Tyr Met Leu Ile Ile Ala Glu Asn Leu Val Ile Ile Phe Thr			
35	40	45	
Val Trp Ser Thr Gly Ser Leu His Lys Pro Met Tyr Tyr Phe Leu Ser			
50	55	60	
Ser Met Ser Phe Leu Glu Ile Trp Tyr Val Ser Val Thr Val Pro Lys			
65	70	75	80
Met Leu Asp Gly Phe Leu Leu Gln Arg Arg His Ile Ser Phe Thr Gly			
85	90	95	

Cys Met Thr Gln Leu Tyr Phe Phe Ile Ser Leu Ala Cys Thr Glu Cys
 100 105 110
 Val Leu Leu Ala Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys His
 115 120 125
 Pro Leu Arg Tyr Pro Val Ile Met Thr Thr Val Tyr Cys Met Gln Leu
 130 135 140
 Met Ala Leu Ser Tyr Phe Ser Gly Phe Met Val Ser Val Val Lys Val
 145 150 155 160
 Tyr Phe Ile Ser His Val Ala Phe Cys Gly Ser Asn Val Met Asn His
 165 170 175
 Phe Phe Cys Asp Ile Ser Pro Ile Leu Lys Leu Ala Cys Lys Asp Met
 180 185 190
 Ser Thr Ala Glu Leu Val Asp Phe Ala Leu Ala Ile Val Ile Leu Val
 195 200 205
 Phe Pro Leu Ile Thr Thr Val Leu Ser Tyr Val Tyr Ile Val Ser Thr
 210 215 220
 Ile Leu Arg Ile Pro Ser Thr Gln Gly Arg Lys Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Ala Ser His Leu Thr Val Val Ile Ile Tyr Tyr Thr Ala Met Ile
 245 250 255
 Phe Met Tyr Val Arg Pro Arg Ala Ile Ala Ser Phe Asn Ser Asn Lys
 260 265 270
 Leu Ile Ser Ala Val Tyr Ala Val Leu Thr Pro Met Leu Asn Pro Phe
 275 280 285
 Ile Tyr Cys Leu Arg Asn Arg Glu Val Lys Asp Ala Ile Lys Lys Thr
 290 295 300
 Leu Gly Gly Gly Gln Cys Phe Leu Leu Cys
 305 310

<210> 27
 <211> 971
 <212> DNA
 <213> Homo sapiens

<400> 27
 caatgatgga aatagccaat gtgagttctc cagaagtc tt tgccctcctg ggcttctccg 60
 cacgaccctc actagaaact gtcctttca tagttgttt gagttttac atggtatcga 120
 tcttgggcaa tggcatcattt attctggctt cccatacaga tgtgcacctc cacacaccta 180
 tgtacttctt tcttgccaa ctctccttcc tggacatgag cttcaccacg agcattgtcc 240
 cacagctcct ggctaaccctc tggggaccac agaaaaccat aagctatgga gggtgtgtgg 300
 tccagttcttata tctccat tggctggggg caaccgagtg tgtccctgctg gccaccatgt 360
 cctatgaccg ctacgctgcc atctgcaggc cactccattt cactgtcattt atgcattccac 420
 agcttgcct tggcttagct ttggcctcct ggctgggggg tctgaccacc agcatgggg 480

gctccacgct caccatgctc ctaccgctgt gtgggaacaa ttgcacatcgac cacttctttt 540
gcgagatgcc cctcattatg caactggctt gtgtggatac cagcctcaat gagatggaga 600
tgtacctggc cagctttgtc tttgttgc tgcctctggg gctcatcctg gtctcttacg 660
gccacattgc ccggccgtg ttgaagatca ggtcagcaga agggcggaga aaggcattca 720
acacctgttc ttcccacgtg gctgtggtgt ctctgtttt cgggagcatc atcttcatgt 780
atctccagcc agccaaagagc acctccccatg agcagggcaa gttcatagct ctgttctaca 840
ccgttagtcac tcctgcgtt aaccaggta ttacaccct gaggaaacacg gaggtgaaga 900
gcgcctccg gcacatggta ttagagaact gctgtggctc tgcaggcaag ctggcgcaaa 960
tttagagact c 971

<210> 28

<211> 320

<212> PRT

<213> Homo sapiens

<400> 28

Met Met Glu Ile Ala Asn Val Ser Ser Pro Glu Val Phe Val Leu Leu
1 5 10 15

Gly Phe Ser Ala Arg Pro Ser Leu Glu Thr Val Leu Phe Ile Val Val
20 25 30

Leu Ser Phe Tyr Met Val Ser Ile Leu Gly Asn Gly Ile Ile Ile Leu
35 40 45

Val Ser His Thr Asp Val His Leu His Thr Pro Met Tyr Phe Phe Leu
50 55 60

Ala Asn Leu Ser Phe Leu Asp Met Ser Phe Thr Thr Ser Ile Val Pro
65 70 75 80

Gln Leu Leu Ala Asn Leu Trp Gly Pro Gln Lys Thr Ile Ser Tyr Gly
85 90 95

Gly Cys Val Val Gln Phe Tyr Ile Ser His Trp Leu Gly Ala Thr Glu
100 105 110

Cys Val Leu Leu Ala Thr Met Ser Tyr Asp Arg Tyr Ala Ala Ile Cys
115 120 125

Arg Pro Leu His Tyr Thr Val Ile Met His Pro Gln Leu Cys Leu Gly
130 135 140

Leu Ala Leu Ala Ser Trp Leu Gly Gly Leu Thr Thr Ser Met Val Gly
145 150 155 160

Ser Thr Leu Thr Met Leu Leu Pro Leu Cys Gly Asn Asn Cys Ile Asp
165 170 175

His Phe Phe Cys Glu Met Pro Leu Ile Met Gln Leu Ala Cys Val Asp
180 185 190

Thr Ser Leu Asn Glu Met Glu Met Tyr Leu Ala Ser Phe Val Phe Val
195 200 205

Val Leu Pro Leu Gly Leu Ile Leu Val Ser Tyr Gly His Ile Ala Arg

210	215	220
Ala Val Leu Lys Ile Arg Ser Ala Glu Gly Arg Arg Lys Ala Phe Asn		
225	230	235
Thr Cys Ser Ser His Val Ala Val Val Ser Leu Phe Tyr Gly Ser Ile		
245	250	255
Ile Phe Met Tyr Leu Gln Pro Ala Lys Ser Thr Ser His Glu Gln Gly		
260	265	270
Lys Phe Ile Ala Leu Phe Tyr Thr Val Val Thr Pro Ala Leu Asn Pro		
275	280	285
Val Ile Tyr Thr Leu Arg Asn Thr Glu Val Lys Ser Ala Leu Arg His		
290	295	300
Met Val Leu Glu Asn Cys Cys Gly Ser Ala Gly Lys Leu Ala Gln Ile		
305	310	315
		320

<210> 29
 <211> 312
 <212> PRT
 <213> Mus musculus

<400> 29		
Met Glu Val Asp Ser Asn Ser Ser Gly Thr Phe Ile Leu Met Gly		
1	5	10
		15
Val Ser Asp His Pro His Leu Glu Ile Ile Phe Phe Ala Val Ile Leu		
20	25	30
Ala Ser Tyr Leu Leu Thr Leu Val Gly Asn Leu Thr Ile Ile Leu Leu		
35	40	45
Ser Arg Leu Asp Ala Arg Leu His Thr Pro Met Tyr Phe Phe Leu Ser		
50	55	60
Asn Leu Ser Ser Leu Asp Leu Ala Phe Thr Thr Ser Ser Val Pro Gln		
65	70	75
		80
Met Leu Lys Asn Leu Trp Gly Pro Asp Lys Thr Ile Ser Tyr Gly Gly		
85	90	95
Cys Val Thr Gln Leu Tyr Val Phe Leu Trp Leu Gly Ala Thr Glu Cys		
100	105	110
Ile Leu Leu Val Val Met Ala Phe Asp Arg Tyr Val Ala Val Cys Arg		
115	120	125
Pro Leu His Tyr Met Thr Val Met Asn Pro Arg Leu Cys Trp Gly Leu		
130	135	140

Ala Ala Ile Ser Trp Leu Gly Gly Leu Gly Asn Ser Val Ile Gln Ser
 145 150 155 160
 Thr Phe Thr Leu Gln Leu Pro Phe Cys Gly His Arg Lys Val Asp Asn
 165 170 175
 Phe Leu Cys Glu Val Pro Ala Met Ile Lys Leu Ala Cys Gly Asp Thr
 180 185 190
 Ser Leu Asn Glu Ala Val Leu Asn Gly Val Cys Thr Phe Phe Thr Val
 195 200 205
 Val Pro Val Ser Val Ile Leu Val Ser Tyr Cys Phe Ile Ala Gln Ala
 210 215 220
 Val Met Lys Ile Arg Ser Val Glu Gly Arg Arg Lys Ala Phe Asn Thr
 225 230 235 240
 Cys Val Ser His Leu Val Val Phe Leu Phe Tyr Gly Ser Ala Ile
 245 250 255
 Tyr Gly Tyr Leu Leu Pro Ala Lys Ser Ser Asn Gln Ser Gln Gly Lys
 260 265 270
 Phe Ile Ser Leu Phe Tyr Ser Val Val Thr Pro Met Val Asn Pro Leu
 275 280 285
 Ile Tyr Thr Leu Arg Asn Lys Glu Val Lys Gly Ala Leu Gly Arg Leu
 290 295 300
 Leu Gly Lys Gly Arg Gly Ala Ser
 305 310

<210> 30
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 30
 Met Leu Met Lys Lys Asn Ala Ser Phe Glu Asp Phe Phe Ile Leu Leu
 1 5 10 15
 Gly Phe Ser Asn Trp Pro His Leu Glu Val Val Leu Phe Val Val Ile
 20 25 30
 Leu Ile Phe Tyr Leu Ile Thr Leu Ile Gly Asn Leu Phe Ile Ile Ile
 35 40 45
 Leu Ser Tyr Leu Asp Ser His Leu His Thr Pro Met Tyr Phe Phe Leu
 50 55 60
 Ser Asn Leu Ser Phe Leu Asp Leu Cys Tyr Thr Thr Ser Ser Ile Pro
 65 70 75 80
 Gln Leu Leu Val Asn Leu Trp Gly Pro Glu Lys Thr Ile Ser Tyr Ala
 85 90 95

Gly Cys Thr Val Gln Leu Tyr Phe Val Leu Ala Leu Gly Thr Ala Glu
 100 105 110
 Cys Val Leu Leu Val Val Met Ser Tyr Asp Arg Tyr Ala Ala Val Cys
 115 120 125
 Arg Pro Leu His Tyr Thr Val Leu Met His Pro Arg Phe Cys Arg Leu
 130 135 140
 Leu Ala Ala Ala Ser Trp Val Ser Gly Phe Thr Thr Ser Ala Leu His
 145 150 155 160
 Ser Ser Phe Thr Phe Trp Ile Pro Leu Cys Arg His Arg Leu Val Asp
 165 170 175
 His Phe Phe Cys Glu Val Pro Ala Leu Leu Arg Leu Ser Cys Val Asp
 180 185 190
 Thr Gln Ala Asn Glu Leu Thr Leu Met Val Met Ser Ser Ile Phe Val
 195 200 205
 Leu Ile Pro Leu Ile Leu Ile Leu Thr Ser Tyr Gly Ala Ile Ala Arg
 210 215 220
 Ala Val Leu Ser Met Gln Ser Thr Thr Gly Leu Gln Lys Val Leu Arg
 225 230 235 240
 Thr Cys Gly Ala His Leu Met Val Val Ser Leu Phe Phe Ile Pro Val
 245 250 255
 Met Cys Met Tyr Leu Gln Pro Pro Ser Glu Asn Ser Gln Asp Gln Gly
 260 265 270
 Lys Phe Ile Ala Leu Phe Tyr Thr Val Val Thr Pro Ser Leu Asn Pro
 275 280 285
 Leu Ile Tyr Thr Phe Arg Asn Lys Asp Val Arg Gly Ala Val Lys Arg
 290 295 300
 Leu Met Gly Trp Glu Trp Gly Met
 305 310

<210> 31
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 31
 Met Leu Met Lys Lys Asn Ala Ser Phe Glu Asp Phe Phe Leu Leu
 1 5 10 15
 Gly Phe Ser Asn Trp Pro His Leu Glu Val Val Leu Phe Val Val Ile
 20 25 30
 Leu Ile Phe Tyr Leu Ile Thr Leu Ile Gly Asn Leu Phe Ile Ile Ile

35 40 45

Leu Ser Tyr Leu Asp Ser His Leu His Thr Pro Met Tyr Phe Phe Leu
 50 55 60
 Ser Asn Leu Ser Phe Leu Asp Leu Cys Tyr Thr Thr Ser Ser Ile Pro
 65 70 75 80
 Gln Leu Leu Val Asn Leu Trp Gly Pro Glu Lys Thr Ile Ser Tyr Ala
 85 90 95
 Gly Cys Thr Val Gln Leu Tyr Phe Val Leu Ala Leu Gly Thr Ala Glu
 100 105 110
 Cys Val Leu Leu Val Val Met Ser Tyr Asp Arg Tyr Ala Ala Val Cys
 115 120 125
 Arg Pro Leu His Tyr Thr Val Leu Met His Pro Arg Phe Cys Arg Leu
 130 135 140
 Leu Ala Ala Ala Ser Trp Val Ser Gly Phe Thr Thr Ser Ala Leu His
 145 150 155 160
 Ser Ser Phe Thr Phe Trp Ile Pro Leu Cys Arg His Arg Leu Val Asp
 165 170 175
 His Phe Phe Cys Glu Val Pro Ala Leu Leu Arg Leu Ser Cys Val Asp
 180 185 190
 Thr Gln Ala Asn Glu Leu Thr Leu Met Val Met Ser Ser Ile Phe Val
 195 200 205
 Leu Ile Pro Leu Ile Leu Ile Leu Thr Ser Tyr Gly Ala Ile Ala Arg
 210 215 220
 Ala Val Leu Ser Met Gln Ser Thr Thr Gly Leu Gln Lys Val Leu Arg
 225 230 235 240
 Thr Cys Gly Ala His Leu Met Val Val Ser Leu Phe Phe Ile Pro Val
 245 250 255
 Met Cys Met Tyr Leu Gln Pro Pro Ser Glu Asn Ser Gln Asp Gln Gly
 260 265 270
 Lys Phe Ile Ala Leu Phe Tyr Thr Val Val Thr Pro Ser Leu Asn Pro
 275 280 285
 Leu Ile Tyr Thr Phe Arg Asn Lys Asp Val Arg Gly Ala Val Lys Arg
 290 295 300
 Leu Met Gly Trp Glu Trp Gly Met
 305 310

<210> 32
<211> 311
<212> PRT

<213> Homo sapiens

<400> 32

Met Asn Asp Asp Gly Lys Val Asn Ala Ser Ser Glu Gly Tyr Phe Ile
1 5 10 15
Leu Val Gly Phe Ser Asn Trp Pro His Leu Glu Val Val Ile Phe Val
20 25 30
Val Val Leu Ile Phe Tyr Leu Met Thr Leu Ile Gly Asn Leu Phe Ile
35 40 45
Ile Ile Leu Ser Tyr Leu Asp Ser His Leu His Thr Pro Met Tyr Phe
50 55 60
Phe Leu Ser Asn Leu Ser Phe Leu Asp Leu Cys Tyr Thr Thr Ser Ser
65 70 75 80
Ile Pro Gln Leu Leu Val Asn Leu Trp Gly Pro Glu Lys Thr Ile Ser
85 90 95
Tyr Ala Gly Cys Met Ile Gln Leu Tyr Phe Val Leu Ala Leu Gly Thr
100 105 110
Thr Glu Cys Val Leu Leu Val Val Met Ser Tyr Asp Arg Tyr Ala Ala
115 120 125
Val Cys Arg Pro Leu His Tyr Thr Val Leu Met His Pro Arg Phe Cys
130 135 140
His Leu Leu Ala Val Ala Ser Trp Val Ser Gly Phe Thr Asn Ser Ala
145 150 155 160
Leu His Ser Ser Phe Thr Phe Trp Val Pro Leu Cys Gly His Arg Gln
165 170 175
Val Asp His Phe Phe Cys Glu Val Pro Ala Leu Leu Arg Leu Ser Cys
180 185 190
Val Asp Thr His Val Asn Glu Leu Thr Leu Met Ile Thr Ser Ser Ile
195 200 205
Phe Val Leu Ile Pro Leu Ile Leu Ile Leu Thr Ser Tyr Gly Ala Ile
210 215 220
Val Arg Ala Val Leu Arg Met Gln Ser Thr Thr Gly Leu Gln Lys Val
225 230 235 240
Phe Gly Thr Cys Gly Ala His Leu Met Ala Val Ser Leu Phe Phe Ile
245 250 255
Pro Ala Met Cys Ile Tyr Leu Gln Pro Pro Ser Gly Asn Ser Gln Asp
260 265 270
Gln Gly Lys Phe Ile Ala Leu Phe Tyr Thr Val Val Thr Pro Ser Leu
275 280 285

Asn Pro Leu Ile Tyr Thr Leu Arg Asn Lys Val Val Arg Gly Ala Val
290 295 300

Lys Arg Leu Met Gly Trp Glu
305 310

<210> 33
<211> 320
<212> PRT
<213> Homo sapiens

<400> 33
Met Asp Gln Ser Asn Tyr Ser Ser Leu His Gly Phe Ile Leu Leu Gly
1 5 10 15

Phe Ser Asn His Pro Lys Met Glu Met Ile Leu Ser Gly Val Val Ala
20 25 30

Ile Phe Tyr Leu Ile Thr Leu Val Gly Asn Thr Ala Ile Ile Leu Ala
35 40 45

Ser Leu Leu Asp Ser Gln Leu His Thr Pro Met Tyr Phe Phe Leu Arg
50 55 60

Asn Leu Ser Phe Leu Asp Leu Cys Phe Thr Thr Ser Ile Ile Pro Gln
65 70 75 80

Met Leu Val Asn Leu Trp Gly Pro Asp Lys Thr Ile Ser Tyr Val Gly
85 90 95

Cys Ile Ile Gln Leu Tyr Val Tyr Met Trp Leu Gly Ser Val Glu Cys
100 105 110

Leu Leu Leu Ala Val Met Ser Tyr Asp Arg Phe Thr Ala Ile Cys Lys
115 120 125

Pro Leu His Tyr Phe Val Val Met Asn Pro His Leu Cys Leu Lys Met
130 135 140

Ile Ile Met Ile Trp Ser Ile Ser Leu Ala Asn Ser Val Val Leu Cys
145 150 155 160

Thr Leu Thr Leu Asn Leu Pro Thr Cys Gly Asn Asn Ile Leu Asp His
165 170 175

Phe Leu Cys Glu Leu Pro Ala Leu Val Lys Ile Ala Cys Val Asp Thr
180 185 190

Thr Thr Val Glu Met Ser Val Phe Ala Leu Gly Ile Ile Ile Val Leu
195 200 205

Thr Pro Leu Ile Leu Ile Leu Ile Ser Tyr Gly Tyr Ile Ala Lys Ala
210 215 220

Val Leu Arg Thr Lys Ser Lys Ala Ser Gln Arg Lys Ala Met Asn Thr
225 230 235 240

Cys Gly Ser His Leu Thr Val Val Ser Met Phe Tyr Gly Thr Ile Ile
 245 250 255
 Tyr Met Tyr Leu Gln Pro Gly Asn Arg Ala Ser Lys Asp Gln Gly Lys
 260 265 270
 Phe Leu Thr Leu Phe Tyr Thr Val Ile Thr Pro Ser Leu Asn Pro Leu
 275 280 285
 Ile Tyr Thr Leu Arg Asn Lys Asp Met Lys Asp Ala Leu Lys Lys Leu
 290 295 300
 Met Arg Phe His His Lys Ser Thr Lys Ile Lys Arg Asn Cys Lys Ser
 305 310 315 320

<210> 34
 <211> 1025
 <212> DNA
 <213> Homo sapiens

<400> 34
 agctgtggac catctttca gaactctgca gcatggagcc gctcaacaga acagaggtgt 60
 ccgagttctt tctgaaagga ttttctggct acccagccct ggagcatctg ctcttccctc 120
 tggctcagc catgtacccgt gtgaccctcc tggggaaacac agccatcatg gcggtgagcg 180
 tcttagatcc acacccgtgt accttcttccctt gggcaacccctc tctaccctgg 240
 acatctgcta caccgtccacc tttgtgcctc tgatgtgtt ccacccctgt tcattcccgaa 300
 agaccatctc ctttgctgtc tggccatcc agatgtgtt gggccgtcc acgggctcca 360
 cggagtgccct gctactggcc atcacggccct atgaccgtca cctggccatc tgccagccac 420
 tcaggtacca cgtgctcatg agccacccggc tctgcgtgt gctgtatgggaa gctgcctggg 480
 tcctctgcct cctcaagtcg gtgactgaga tggcatctc catgaggctg cccttctgtg 540
 gccaccacgt ggtcagtcac ttcacctgca agatcctggc agtgcgtgaag ctggcatg 600
 gcaacacgtc ggtcagcgaa gacttctgc tggcgggctc catcctgtgt ctgcctgtac 660
 ccctggcatt catctgctg tcctacttgc tcattctggc caccatccctg aggggtgc 720
 cggccgcctc ctttctacgg caccatcatc ttcatgtact tgaagcccaa gagtaaggaa gcccacatct 780
 ctgtatgggt cttcacatgc ctctatgcca tggtcacgac catgcgtaaac cccaccatct 840
 acagccctgag gaacaaggag gtgaaggagg cgcgcaggaa ggtgtgggca aggagtcggg 900
 cctccagggtg agggagggcg gggctctgtta cagacgcagg tctcagggtta gtagctgagg 960
 ccatc 1025

<210> 35
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 35
 Met Glu Pro Leu Asn Arg Thr Glu Val Ser Glu Phe Phe Leu Lys Gly
 1 5 10 15
 Phe Ser Gly Tyr Pro Ala Leu Glu His Leu Leu Phe Pro Leu Cys Ser
 20 25 30

Ala Met Tyr Leu Val Thr Leu Leu Gly Asn Thr Ala Ile Met Ala Val
 35 40 45

 Ser Val Leu Asp Ile His Leu His Thr Pro Val Tyr Phe Phe Leu Gly
 50 55 60

 Asn Leu Ser Thr Leu Asp Ile Cys Tyr Thr Pro Thr Phe Val Pro Leu
 65 70 75 80

 Met Leu Val His Leu Leu Ser Ser Arg Lys Thr Ile Ser Phe Ala Val
 85 90 95

 Cys Ala Ile Gln Met Cys Leu Ser Leu Ser Thr Gly Ser Thr Glu Cys
 100 105 110

 Leu Leu Leu Ala Ile Thr Ala Tyr Asp Arg Tyr Leu Ala Ile Cys Gln
 115 120 125

 Pro Leu Arg Tyr His Val Leu Met Ser His Arg Leu Cys Val Leu Leu
 130 135 140

 Met Gly Ala Ala Trp Val Leu Cys Leu Leu Lys Ser Val Thr Glu Met
 145 150 155 160

 Val Ile Ser Met Arg Leu Pro Phe Cys Gly His His Val Val Ser His
 165 170 175

 Phe Thr Cys Lys Ile Leu Ala Val Leu Lys Leu Ala Cys Gly Asn Thr
 180 185 190

 Ser Val Ser Glu Asp Phe Leu Leu Ala Gly Ser Ile Leu Leu Pro
 195 200 205

 Val Pro Leu Ala Phe Ile Cys Leu Ser Tyr Leu Leu Ile Leu Ala Thr
 210 215 220

 Ile Leu Arg Val Pro Ser Ala Ala Arg Cys Cys Lys Ala Phe Ser Thr
 225 230 235 240

 Cys Leu Ala His Leu Ala Val Val Leu Leu Phe Tyr Gly Thr Ile Ile
 245 250 255

 Phe Met Tyr Leu Lys Pro Lys Ser Lys Glu Ala His Ile Ser Asp Glu
 260 265 270

 Val Phe Thr Val Leu Tyr Ala Met Val Thr Thr Met Leu Asn Pro Thr
 275 280 285

 Ile Tyr Ser Leu Arg Asn Lys Glu Val Lys Glu Ala Ala Arg Lys Val
 290 295 300

 Trp Gly Arg Ser Arg Ala Ser Arg
 305 310

<211> 917
<212> DNA
<213> Homo sapiens

<400> 36
tgctcttccc tctgtgtca gccatgtacc tggtgaccc cctgggaac acagccatca 60
tggcggtgag cgtgttagat atccacactgc acacgcccgt gtacttcttc ctgggcaacc 120
tctctaccct gacatctgc tacacgccc ccttgtgcc tctgtatgtc gtccacactcc 180
tgtcatcccc gaagaccatc tccttgcgtc tctgtgtccat ccagatgtgt ctgagccgt 240
ccacgggctc cacggagtgc ctgtactgg ccatacaggc ctatgaccgc tacctggcca 300
tctgccagcc actcaggtaa cacgtgtca tgagccaccc gctctgcgtc ctgctgtatgg 360
gagctgcctg ggtcctctgc tcctcaagt cggtgactga gatggtcata tccatgaggc 420
tgcccttctg tggccaccac gtggtcagtc acttcacccgt caagatcctg gcagtgtga 480
agctggcatg cggcaacacg tcggtcagcg aagacttccct gctggccggc tccatcctgc 540
tgctgcctgt accccctggca ttcatctgcc tgcctactt gtcatacctg gccaccatcc 600
tgagggtgcc ctcggccccc aggtgtgc aagccttctc cacctgcgtc gcacacctgg 660
ctgttagtgcgt gctttctac ggcaccatca tcttcatgtc cttgaagccc aagagtaagg 720
aagccacat ctctgtatgg gtcttcacag tcctctatgc catggtcacg accatgctga 780
acccacat ctacagcctg aggaacaagg aggtgaagga ggcggccagg aaggtgtggg 840
gcaggagtcg ggcctccagg tgagggaggg cggggctctg tacagacgca ggtctcaggt 900
tagtagctga ggccatc 917

<210> 37
<211> 286
<212> PRT
<213> Homo sapiens

<400> 37
Leu Phe Pro Leu Cys Ser Ala Met Tyr Leu Val Thr Leu Leu Gly Asn
1 5 10 15

Thr Ala Ile Met Ala Val Ser Val Leu Asp Ile His Leu His Thr Pro
20 25 30

Val Tyr Phe Phe Leu Gly Asn Leu Ser Thr Leu Asp Ile Cys Tyr Thr
35 40 45

Pro Thr Phe Val Pro Leu Met Leu Val His Leu Leu Ser Ser Arg Lys
50 55 60

Thr Ile Ser Phe Ala Val Cys Ala Ile Gln Met Cys Leu Ser Leu Ser
65 70 75 80

Thr Gly Ser Thr Glu Cys Leu Leu Leu Ala Ile Thr Ala Tyr Asp Arg
85 90 95

Tyr Leu Ala Ile Cys Gln Pro Leu Arg Tyr His Val Leu Met Ser His
100 105 110

Arg Leu Cys Val Leu Leu Met Gly Ala Ala Trp Val Leu Cys Leu Leu
115 120 125

Lys Ser Val Thr Glu Met Val Ile Ser Met Arg Leu Pro Phe Cys Gly
130 135 140

His His Val Val Ser His Phe Thr Cys Lys Ile Leu Ala Val Leu Lys

145	150	155	160
Leu Ala Cys Gly Asn Thr Ser Val Ser Glu Asp Phe Leu Leu Ala Gly			
165	170	175	
Ser Ile Leu Leu Leu Pro Val Pro Leu Ala Phe Ile Cys Leu Ser Tyr			
180	185	190	
Leu Leu Ile Leu Ala Thr Ile Leu Arg Val Pro Ser Ala Ala Arg Cys			
195	200	205	
Cys Lys Ala Phe Ser Thr Cys Leu Ala His Leu Ala Val Val Leu Leu			
210	215	220	
Phe Tyr Gly Thr Ile Ile Phe Met Tyr Leu Lys Pro Lys Ser Lys Glu			
225	230	235	240
Ala His Ile Ser Asp Glu Val Phe Thr Val Leu Tyr Ala Met Val Thr			
245	250	255	
Thr Met Leu Asn Pro Thr Ile Tyr Ser Leu Arg Asn Lys Glu Val Lys			
260	265	270	
Glu Ala Ala Arg Lys Val Trp Gly Arg Ser Arg Ala Ser Arg			
275	280	285	
<210> 38			
<211> 312			
<212> PRT			
<213> Mus musculus			
<400> 38			
Met Glu Pro Ser Asn Arg Thr Ala Val Ser Glu Phe Val Leu Lys Gly			
1	5	10	15
Phe Ser Gly Tyr Pro Ala Leu Glu Arg Leu Leu Phe Pro Leu Cys Ser			
20	25	30	
Val Met Tyr Leu Val Thr Leu Leu Gly Asn Thr Ala Ile Val Ala Val			
35	40	45	
Ser Met Leu Asp Ala Arg Leu His Thr Pro Met Tyr Phe Phe Leu Gly			
50	55	60	
Asn Leu Ser Ile Leu Asp Ile Cys Tyr Thr Ser Thr Phe Val Pro Leu			
65	70	75	80
Met Leu Val His Leu Leu Ser Ser Arg Lys Thr Ile Ser Phe Thr Gly			
85	90	95	
Cys Ala Val Gln Met Cys Leu Ser Leu Ser Thr Gly Ser Thr Glu Cys			
100	105	110	
Leu Leu Leu Ala Val Met Ala Tyr Asp Arg Tyr Leu Ala Ile Cys Gln			
115	120	125	

Pro Leu Arg Tyr Pro Val Leu Met Ser His Arg Leu Cys Leu Met Leu
 130 135 140
 Ala Gly Ala Ser Trp Val Leu Cys Leu Phe Lys Ser Val Ala Glu Thr
 145 150 155 160
 Val Ile Ala Met Arg Leu Pro Phe Cys Gly His His Val Ile Arg His
 165 170 175
 Phe Thr Cys Glu Ile Leu Ala Val Leu Lys Leu Thr Cys Gly Asp Thr
 180 185 190
 Ser Val Ser Asp Ala Phe Leu Leu Val Gly Ala Ile Leu Leu Pro
 195 200 205
 Ile Pro Leu Thr Leu Ile Cys Leu Ser Tyr Met Leu Ile Leu Ala Thr
 210 215 220
 Ile Leu Arg Val Pro Ser Ala Thr Gly Arg Ser Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Ser Ala His Leu Ala Val Val Leu Leu Phe Tyr Ser Thr Ile Ile
 245 250 255
 Phe Met Tyr Met Lys Pro Lys Ser Lys Glu Ala Arg Ile Ser Asp Gln
 260 265 270
 Val Phe Thr Val Leu Tyr Ala Val Val Thr Pro Met Leu Asn Pro Ile
 275 280 285
 Ile Tyr Ser Leu Arg Asn Lys Glu Val Lys Glu Ala Ala Arg Lys Ala
 290 295 300
 Trp Gly Ser Arg Trp Ala Cys Arg
 305 310

<210> 39
 <211> 216
 <212> PRT
 <213> Homo sapiens

<400> 39
 Thr Leu Asp Ile Cys Tyr Thr Pro Thr Phe Val Pro Leu Met Leu Val
 1 5 10 15
 His Leu Leu Ser Ser Arg Lys Thr Ile Ser Phe Ala Val Cys Ala Ile
 20 25 30
 Gln Met Cys Leu Ser Leu Ser Thr Gly Ser Thr Glu Cys Leu Leu Leu
 35 40 45
 Ala Ile Thr Ala Tyr Asp Arg Tyr Leu Ala Ile Cys Gln Pro Leu Arg
 50 55 60
 Tyr His Val Leu Met Ser His Arg Leu Cys Val Leu Leu Met Gly Ala
 65 70 75 80

Ala Trp Val Leu Cys Leu Leu Lys Ser Val Thr Glu Met Val Ile Ser
85 90 95

Met Arg Leu Pro Phe Cys Gly His His Val Val Ser His Phe Thr Cys
100 105 110

Lys Ile Leu Ala Val Leu Lys Leu Ala Cys Gly Asn Thr Ser Val Ser
115 120 125

Glu Asp Phe Leu Leu Ala Gly Ser Ile Leu Leu Pro Val Pro Leu
130 135 140

Ala Phe Ile Cys Leu Ser Tyr Leu Leu Ile Leu Ala Thr Ile Leu Arg
145 150 155 160

Val Pro Ser Ala Ala Arg Cys Cys Lys Ala Phe Ser Thr Cys Leu Ala
165 170 175

His Leu Ala Val Val Leu Leu Phe Tyr Gly Thr Ile Ile Phe Met Tyr
180 185 190

Leu Lys Pro Lys Ser Lys Glu Ala His Ile Ser Asp Glu Val Phe Thr
195 200 205

Val Leu Tyr Ala Met Val Thr Thr
210 215

<210> 40

<211> 319

<212> PRT

<213> Mus musculus

<400> 40

Met Asp Arg Ser Asn Glu Thr Ala Pro Leu Ser Gly Phe Ile Leu Leu
1 5 10 15

Gly Leu Ser Ala His Pro Lys Leu Glu Lys Thr Phe Phe Val Leu Ile
20 25 30

Leu Met Met Tyr Leu Val Ile Leu Leu Gly Asn Gly Val Leu Ile Leu
35 40 45

Val Ser Ile Leu Asp Ser His Leu His Thr Pro Met Tyr Phe Phe Leu
50 55 60

Gly Asn Leu Ser Phe Leu Asp Ile Cys Tyr Thr Ser Ser Val Pro
65 70 75 80

Leu Ile Leu Asp Ser Phe Leu Thr Pro Arg Lys Thr Ile Ser Phe Ser
85 90 95

Gly Cys Ala Val Gln Met Phe Leu Ser Phe Ala Met Gly Ala Thr Glu
100 105 110

Cys Val Leu Leu Ser Met Met Ala Phe Asp Arg Tyr Val Ala Ile Cys

115	120	125
Asn Pro Leu Arg Tyr Pro Val Val Met Asn Lys Ala Ala Tyr Val Pro		
130	135	140
Met Ala Ala Ser Ser Trp Ala Gly Gly Ile Thr Asn Ser Val Val Gln		
145	150	155
160		
Thr Ser Leu Ala Met Arg Leu Pro Phe Cys Gly Asp Asn Val Ile Asn		
165	170	175
His Phe Thr Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp		
180	185	190
Ile Ser Ile Asn Val Ile Ser Met Val Val Ala Asn Met Ile Phe Leu		
195	200	205
Ala Val Pro Val Leu Phe Ile Phe Val Ser Tyr Val Phe Ile Leu Val		
210	215	220
Thr Ile Leu Arg Ile Pro Ser Ala Glu Gly Arg Lys Lys Ala Phe Ser		
225	230	235
240		
Thr Cys Ser Ala His Leu Thr Val Val Leu Val Phe Tyr Gly Thr Ile		
245	250	255
Leu Phe Met Tyr Gly Lys Pro Lys Ser Lys Asp Pro Leu Gly Ala Asp		
260	265	270
Lys Gln Asp Leu Ala Asp Lys Leu Ile Ser Leu Phe Tyr Gly Val Val		
275	280	285
Thr Pro Met Leu Asn Pro Ile Ile Tyr Ser Leu Arg Asn Lys Asp Val		
290	295	300
Arg Ala Ala Val Arg Asn Leu Val Gly Gln Lys His Leu Thr Glu		
305	310	315
<210> 41		
<211> 319		
<212> PRT		
<213> Mus musculus		
<400> 41		
Met Glu Arg Ser Asn Lys Thr Thr Pro Val Ser Ser Phe Ile Leu Leu		
1	5	10
15		
Gly Leu Ser Ala His Pro Lys Leu Glu Lys Thr Phe Phe Val Leu Ile		
20	25	30
Leu Leu Met Tyr Leu Val Ile Leu Leu Gly Asn Val Val Leu Ile Leu		
35	40	45
Val Ser Ile Leu Asp Ser His Leu His Thr Pro Met Tyr Phe Phe Leu		
50	55	60

Gly Asn Leu Ser Phe Leu Asp Ile Cys Tyr Thr Thr Ser Ser Val Pro
 65 70 75 80
 Leu Ile Leu Asp Ser Phe Leu Thr Pro Arg Lys Thr Ile Ser Phe Ser
 85 90 95
 Gly Cys Ala Val Gln Met Phe Leu Ser Phe Ala Met Gly Ala Thr Glu
 100 105 110
 Cys Val Leu Leu Gly Met Met Ala Phe Asp Arg Tyr Val Ala Ile Cys
 115 120 125
 Asn Pro Leu Arg Tyr Pro Val Val Met Ser Lys Ala Ala Tyr Val Pro
 130 135 140
 Met Ala Ala Gly Ser Trp Val Ser Gly Ser Ile Thr Ala Thr Val Gln
 145 150 155 160
 Ile Ser Leu Ala Met Thr Leu Pro Phe Cys Gly Asp Asn Val Ile Asn
 165 170 175
 His Phe Thr Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp
 180 185 190
 Ile Ser Ile Asn Val Ile Ser Met Ala Val Ala Asn Ala Met Phe Leu
 195 200 205
 Gly Val Pro Val Leu Phe Ile Phe Val Ser Tyr Ile Phe Ile Leu Ser
 210 215 220
 Thr Ile Leu Arg Ile Pro Ser Ala Glu Gly Arg Lys Lys Ala Phe Ser
 225 230 235 240
 Thr Cys Ser Ala His Leu Thr Val Val Leu Val Phe Tyr Gly Thr Ile
 245 250 255
 Leu Phe Met Tyr Gly Lys Pro Lys Ser Lys Asp Pro Leu Gly Ala Asp
 260 265 270
 Lys Gln Asp Leu Ala Asp Lys Leu Ile Ser Leu Phe Tyr Gly Val Val
 275 280 285
 Thr Pro Met Leu Asn Pro Ile Ile Tyr Ser Leu Arg Asn Lys Asp Val
 290 295 300
 Lys Ala Ala Val Thr Asn Leu Val Gly Gln Lys His Phe Lys Trp
 305 310 315

<210> 42

<211> 318

<212> PRT

<213> Homo sapiens

<400> 42

Met Glu Gly Ala Asn Gln Ser Thr Val Ala Glu Phe Val Leu Leu Gly
 1 5 10 15

Leu Ser Asp His Pro Lys Leu Glu Lys Thr Phe Phe Val Leu Ile Leu
 20 25 30
 Leu Met Tyr Leu Val Ile Leu Leu Gly Asn Gly Val Leu Ile Leu Val
 35 40 45
 Ser Ile Leu Asp Ser His Leu His Thr Pro Met Tyr Phe Phe Leu Gly
 50 55 60
 Asp Leu Ser Phe Leu Asp Ile Cys Tyr Thr Ser Ser Ile Pro Leu
 65 70 75 80
 Val Leu Asp Gly Phe Leu Thr Pro Arg Lys Thr Ile Ser Phe Ser Gly
 85 90 95
 Cys Ala Val Gln Met Phe Leu Ser Phe Ala Met Gly Ala Thr Glu Cys
 100 105 110
 Val Leu Leu Gly Met Met Ala Phe Asp Arg Tyr Val Ala Ile Cys Asn
 115 120 125
 Pro Leu Arg Tyr Pro Val Val Met Asn Lys Ser Ala Tyr Val Pro Met
 130 135 140
 Ala Val Ser Ser Trp Val Ala Gly Gly Ala Asn Ser Leu Val Gln Ile
 145 150 155 160
 Ser Leu Ala Val Gln Leu Pro Phe Cys Gly Asp Asn Val Ile Asn His
 165 170 175
 Phe Thr Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Ile
 180 185 190
 Ser Ile Asn Val Ile Ser Met Gly Val Ala Asn Val Ile Phe Leu Gly
 195 200 205
 Val Pro Val Leu Phe Ile Phe Val Ser Tyr Ile Phe Ile Leu Ser Thr
 210 215 220
 Ile Leu Arg Ile Pro Ser Ala Glu Gly Arg Lys Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Ser Ala His Leu Thr Val Val Leu Val Phe Tyr Gly Thr Ile Leu
 245 250 255
 Phe Met Tyr Gly Lys Pro Lys Ser Lys Asp Pro Leu Gly Ala Asp Lys
 260 265 270
 Gln Asp Val Ser Asp Lys Leu Ile Ser Leu Phe Tyr Gly Val Leu Thr
 275 280 285
 Pro Met Leu Asn Pro Ile Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys
 290 295 300
 Ala Ala Val Arg Asn Leu Val Gly Gln Lys Cys Leu Ile Gln
 305 310 315

<210> 43
<211> 2028
<212> DNA
<213> Homo sapiens

<400> 43
tgctatgcc ccagcacttg atacctagca cagaatagg acttaataaa tacttagtgg 60
atgaataaaat ctgaaataact atggccataa ttgggtcaca tgaagccgt aatgtggaaa 120
gatgcttcct gttaatgacc aaaaacactt tggattccaa acgatcattt taaacatgaa 180
tctttctctg ctgtcttcctc tgaccccatc ctggggagag cagagaggag cctagggac 240
tagaatgtgc cccatcctcc cctcagtgtac gtccacagaa ctgcagcgct gagaaggcca 300
gattgcagat ctgaagtcca actccctcat tatacagatg gtgaaactaa attccagaga 360
gggaggctga cctgtgcag ctcagacatc aggtcactgg gctcccaggc cagttggagc 420
aaccagacag ctgtgacgga atacgtcctg atggggctac acgagcactg taacctggag 480
gtggtcctgt ttgttctg cttggcattc tactccgtga atgtgttggg gaacgcctc 600
ctcatagggc tgaacgtgct gcacccctgc ctgcacaacc ccatgtactt ccttctcagc 660
aacctctccc tcatggacat ctgcggcacc tcttccttgc tgccatgtactt ccttctcagc 720
ttcctggaaa cccagaggac catttccttc cctggctgtg ccctgcagat gtacctgacc 780
ctggcgttgg gatcaacgga gtgcctgtg ctggctgtga tggcatatga ccgttatgtg 840
gctatctgcc agccgcttag gtacccagag ctcatgtactt ggcagacctg catgcagatg 900
caccctccc tctgtggcca aggtttgca aactcaactc tacagtccat cttgtctgg 960
ctggcgttgg gggacatctc ctcatgtactt gtttgcattaa tggtggccac agccgtcctg 1020
aactggccc ccctctgtc catctgcctg tcttacctt tcatctgtc tgccatcctt 1080
agggtaccct ctgctgcagg ccgtgtcaaa gccttcctca cctgctcagc ccacgcaca 1140
gtgggtgtgg tttttatgg gacaatctcc ttcattgtact tcaaaacccaa ggccaaggat 1200
cccaacgtgg ataagactgt cgcattgttac tttttatgg gacaatctcc ttcattgtact tcaaaacccaa ggccaaggat 1260
atcatattaca gcctgaggaa tgcagagggtg aaagctgcgc tcctaactct gctgagagga 1320
ataggcttagg ttgtgtgtg gtcattgttac tttttatgg gacaatctcc ttcattgtact tcaaaacccaa ggccaaggat 1380
tttggcctt gtcattgttac tttttatgg gacaatctcc ttcattgtact tcaaaacccaa ggccaaggat 1440
tggccttcac ccctctgttgc ctcaggatgttac tttttatgg gacaatctcc ttcattgtact tcaaaacccaa ggccaaggat 1500
tcaccatgtac aaaaagaaaa gggaaagatcaaaacacatc accattggga acactgtgg 1560
ctcagaagtg gctgtgttgc ctccacccatc atttcattgttac tttttatgg gacaatctcc ttcattgtact tcaaaacccaa ggccaaggat 1620
aggcacacggaa ccacacccatc atttcattgttac tttttatgg gacaatctcc ttcattgtact tcaaaacccaa ggccaaggat 1680
aaacgagaggaa ccacacccatc atttcattgttac tttttatgg gacaatctcc ttcattgtact tcaaaacccaa ggccaaggat 1740
tcaacccaaag gacagagaga ttgtgtatg gcctaatttgc taccacacca gctgacactg 1800
ctgctgccaag agctatggaa ggtttggctt tctttatccctt gaccatctt ctttcacccgg 1860
ctgactcaac caaaacttgc tagagggtgt gggttaggt tggccaca 1920
2028

<210> 44
<211> 326
<212> PRT
<213> Homo sapiens

<400> 44
Met Lys Trp Ala Asn Gln Thr Ala Val Thr Glu Tyr Val Leu Met Gly
1 5 10 15
Leu His Glu His Cys Asn Leu Glu Val Val Leu Phe Val Phe Cys Leu
20 25 30
Gly Ile Tyr Ser Val Asn Val Leu Gly Asn Ala Leu Leu Ile Gly Leu

35 40 45

Asn Val Leu His Pro Arg	Leu His Asn Pro Met	Tyr Phe Leu Leu Ser
50	55	60
Asn Leu Ser Leu Met Asp	Ile Cys Gly Thr Ser Ser	Phe Val Pro Leu
65	70	75
Met Leu Asp Asn Phe Leu	Glu Thr Gln Arg Thr Ile Ser Phe Pro Gly	80
85	90	95
Cys Ala Leu Gln Met Tyr	Leu Thr Ala Leu Gly Ser Thr Glu Cys	
100	105	110
Leu Leu Ala Val Met Ala	Tyr Asp Arg Tyr Val Ala Ile Cys Gln	
115	120	125
Pro Leu Arg Tyr Pro Glu	Leu Met Ser Gly Gln Thr Cys Met Gln Met	
130	135	140
Ala Ala Leu Ser Trp	Gly Thr Gly Phe Ala Asn Ser Leu Leu Gln Ser	
145	150	155
Ile Leu Val Trp His	Leu Pro Phe Cys Gly His Val Ile Asn Tyr Phe	160
165	170	175
Tyr Glu Ile Leu Ala Val	Leu Lys Leu Ala Cys Gly Asp Ile Ser Leu	
180	185	190
Asn Ala Leu Ala Leu Met	Val Ala Thr Ala Val Leu Thr Leu Ala Pro	
195	200	205
Leu Leu Leu Ile Cys	Leu Ser Tyr Leu Phe Ile Leu Ser Ala Ile Leu	
210	215	220
Arg Val Pro Ser Ala	Ala Gly Arg Cys Lys Ala Phe Ser Thr Cys Ser	
225	230	235
Ala His Arg Thr Val	Val Val Val Phe Tyr Gly Thr Ile Ser Phe Met	240
245	250	255
Tyr Phe Lys Pro Lys	Ala Lys Asp Pro Asn Val Asp Lys Thr Val Ala	
260	265	270
Leu Phe Tyr Gly Val	Val Thr Pro Ser Leu Asn Pro Ile Ile Tyr Ser	
275	280	285
Leu Arg Asn Ala Glu	Val Lys Ala Ala Val Leu Thr Leu Leu Arg Gly	
290	295	300
Gly Leu Leu Ser Arg	Lys Ala Ser His Cys Tyr Cys Cys Pro Leu Pro	
305	310	315
Leu Ser Ala Gly	Ile Gly	320
325		

<210> 45
 <211> 315
 <212> PRT
 <213> Mus musculus

 <400> 45
 Met Ala Gly Thr Asn His Thr Glu Val Ile Glu Tyr Val Leu Leu Gly
 1 5 10 15
 Leu Gln Asp His His Gly Leu Glu Ile Ala Leu Phe Val Leu Cys Leu
 20 25 30
 Gly Ile Tyr Cys Met Thr Leu Leu Gly Asn Ser Phe Leu Val Gly Leu
 35 40 45
 Ile Val Leu Asp Thr His Leu His Ser Pro Met Tyr Phe Phe Ile Ser
 50 55 60
 Asn Leu Ser Leu Ile Asp Ile Cys Gly Thr Ser Ser Phe Thr Pro Met
 65 70 75 80
 Met Leu Leu Asn Phe Leu Asp Val Gln Arg Thr Ile Ser Phe Pro Ser
 85 90 95
 Cys Ala Leu Gln Met Tyr Leu Thr Leu Ala Leu Gly Thr Thr Glu Cys
 100 105 110
 Leu Leu Leu Ala Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Gln
 115 120 125
 Pro Leu Arg Tyr Pro Glu Leu Val Asn Gly Arg Tyr Ala Ser Arg Trp
 130 135 140
 Gln Asp Lys Leu Gly Thr Gly Phe Ala Asn Ser Leu Leu His Ser Ile
 145 150 155 160
 Leu Val Trp His Leu Pro Phe Cys Gly His Tyr Ile Ile Asn His Phe
 165 170 175
 Phe Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Gly Asp Ile Ser
 180 185 190
 Leu Asn Ala Leu Ile Leu Thr Val Ala Thr Ala Val Leu Thr Met Thr
 195 200 205
 Pro Leu Leu Leu Ile Cys Leu Ser Tyr Ile Phe Ile Leu Ala Ala Ile
 210 215 220
 Leu Arg Val Pro Ser Ala Ala Gly Arg Ser Lys Ala Phe Ser Thr Cys
 225 230 235 240
 Ser Ala His Leu Thr Val Val Val Ile Phe Tyr Gly Thr Ile Thr Phe
 245 250 255
 Met Tyr Leu Lys Pro Lys Asp Gln Asp Pro Ser Val Gly Lys Ile Ile
 260 265 270

Thr Leu Leu Tyr Ala Ile Val Ala Pro Ser Leu Asn Ala Phe Ile Tyr
275 280 285

Ser Leu Arg Asn Ser Glu Val Lys Ala Ala Val Thr Ala Leu Leu Trp
290 295 300

Gly Gly Leu Leu Thr Arg Lys Met Ser His Phe
305 310 315

<210> 46

<211> 318

<212> PRT

<213> Mus musculus

<400> 46

Met Asp Val Ser Asn Gln Thr Thr Val Thr Glu Phe Val Leu Leu Gly
1 5 10 15

Leu Ser Ala His Pro Lys Leu Glu Lys Thr Phe Phe Val Leu Ile Leu
20 25 30

Ser Met Tyr Leu Val Ile Leu Leu Gly Asn Gly Val Leu Ile Leu Val
35 40 45

Ser Ile Leu Asp Ser His Leu His Thr Pro Met Tyr Phe Phe Leu Gly
50 55 60

Asn Leu Ser Phe Leu Asp Ile Cys Tyr Thr Ser Ser Val Pro Leu
65 70 75 80

Val Leu Asp Gly Phe Leu Thr Pro Arg Lys Thr Ile Ser Phe Ser Gly
85 90 95

Cys Ala Val Gln Met Phe Leu Ser Phe Ala Met Gly Ala Thr Glu Cys
100 105 110

Val Leu Leu Gly Met Met Ala Phe Asp Arg Tyr Val Ala Ile Cys Asn
115 120 125

Pro Leu Arg Tyr Pro Val Val Met Asn Lys Ala Ala Tyr Val Pro Met
130 135 140

Ala Val Ser Ser Trp Val Ala Gly Gly Ala Asn Ser Leu Val Gln Ile
145 150 155 160

Ser Leu Ala Val Gln Leu Pro Phe Cys Gly Asp Asn Val Ile Asn His
165 170 175

Phe Ile Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Ile
180 185 190

Ser Ile Asn Val Ile Ser Met Gly Val Ala Asn Val Ile Phe Leu Gly
195 200 205

Val Pro Val Leu Phe Ile Phe Val Ser Tyr Ile Phe Ile Leu Ser Thr
210 215 220

Ile Leu Arg Ile Pro Ser Ala Glu Gly Arg Lys Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Ser Ala His Leu Thr Val Val Ile Ile Phe Tyr Gly Thr Ile Leu
 245 250 255
 Phe Met Tyr Gly Lys Pro Lys Ser Lys Asp Pro Leu Gly Ala Asp Lys
 260 265 270
 Gln Asp Leu Ala Asp Lys Leu Ile Ser Leu Phe Tyr Gly Leu Leu Thr
 275 280 285
 Pro Met Leu Asn Pro Ile Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys
 290 295 300
 Ala Ala Val Arg Asn Leu Ala Ser His Arg Cys Leu Thr Phe
 305 310 315

<210> 47
 <211> 318
 <212> PRT
 <213> Mus musculus

<400> 47
 Met Glu Gly Ala Asn Gln Ser Thr Val Ala Glu Phe Val Leu Leu Gly
 1 5 10 15
 Leu Ser Asp His Pro Lys Leu Glu Lys Thr Phe Phe Val Leu Ile Leu
 20 25 30
 Leu Met Tyr Leu Val Ile Leu Leu Gly Asn Gly Val Leu Ile Leu Val
 35 40 45
 Ser Ile Leu Asp Ser His Leu His Thr Pro Met Tyr Phe Phe Leu Gly
 50 55 60
 Asp Leu Ser Phe Leu Asp Ile Cys Tyr Thr Ser Ser Ile Pro Leu
 65 70 75 80
 Val Leu Asp Gly Phe Leu Thr Pro Arg Lys Thr Ile Ser Phe Ser Gly
 85 90 95
 Cys Ala Val Gln Met Phe Leu Ser Phe Ala Met Gly Ala Thr Glu Cys
 100 105 110
 Val Leu Leu Gly Met Met Ala Phe Asp Arg Tyr Val Ala Ile Cys Asn
 115 120 125
 Pro Leu Arg Tyr Pro Val Val Met Asn Lys Ser Ala Tyr Val Pro Met
 130 135 140
 Ala Val Ser Ser Trp Val Ala Gly Gly Ala Asn Ser Leu Val Gln Ile
 145 150 155 160
 Ser Leu Ala Val Gln Leu Pro Phe Cys Gly Asp Asn Val Ile Asn His

165	170	175
Phe Thr Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Ile		
180	185	190
Ser Ile Asn Val Ile Ser Met Gly Val Ala Asn Val Ile Phe Leu Gly		
195	200	205
Val Pro Val Leu Phe Ile Phe Val Ser Tyr Ile Phe Ile Leu Ser Thr		
210	215	220
Ile Leu Arg Ile Pro Ser Ala Glu Gly Arg Lys Lys Ala Phe Ser Thr		
225	230	235
Cys Ser Ala His Leu Thr Val Val Leu Val Phe Tyr Gly Thr Ile Leu		
245	250	255
Phe Met Tyr Gly Lys Pro Lys Ser Lys Asp Pro Leu Gly Ala Asp Lys		
260	265	270
Gln Asp Val Ser Asp Lys Leu Ile Ser Leu Phe Tyr Gly Val Leu Thr		
275	280	285
Pro Met Leu Asn Pro Ile Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys		
290	295	300
Ala Ala Val Arg Asn Leu Val Gly Gln Lys Cys Leu Ile Gln		
305	310	315
<210> 48		
<211> 319		
<212> PRT		
<213> Mus musculus		
<400> 48		
Met Asp Arg Ser Asn Glu Thr Ala Pro Leu Ser Gly Phe Ile Leu Leu		
1	5	10
15		
Gly Leu Ser Ala His Pro Lys Leu Glu Lys Thr Phe Phe Val Leu Ile		
20	25	30
Leu Met Met Tyr Leu Val Ile Leu Leu Gly Asn Gly Val Leu Ile Leu		
35	40	45
Val Ser Ile Leu Asp Ser His Leu His Thr Pro Met Tyr Phe Phe Leu		
50	55	60
Gly Asn Leu Ser Phe Leu Asp Ile Cys Tyr Thr Ser Ser Val Pro		
65	70	75
80		
Leu Ile Leu Asp Ser Phe Leu Thr Pro Arg Lys Thr Ile Ser Phe Ser		
85	90	95
Gly Cys Ala Val Gln Met Phe Leu Ser Phe Ala Met Gly Ala Thr Glu		
100	105	110

Cys Val Leu Leu Ser Met Met Ala Phe Asp Arg Tyr Val Ala Ile Cys
115 120 125

Asn Pro Leu Arg Tyr Pro Val Val Met Asn Lys Ala Ala Tyr Val Pro
130 135 140

Met Ala Ala Ser Ser Trp Ala Gly Gly Ile Thr Asn Ser Val Val Gln
145 150 155 160

Thr Ser Leu Ala Met Arg Leu Pro Phe Cys Gly Asp Asn Val Ile Asn
165 170 175

His Phe Thr Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp
180 185 190

Ile Ser Ile Asn Val Ile Ser Met Val Val Ala Asn Met Ile Phe Leu
195 200 205

Ala Val Pro Val Leu Phe Ile Phe Val Ser Tyr Val Phe Ile Leu Val
210 215 220

Thr Ile Leu Arg Ile Pro Ser Ala Glu Gly Arg Lys Lys Ala Phe Ser
225 230 235 240

Thr Cys Ser Ala His Leu Thr Val Val Leu Val Phe Tyr Gly Thr Ile
245 250 255

Leu Phe Met Tyr Gly Lys Pro Lys Ser Lys Asp Pro Leu Gly Ala Asp
260 265 270

Lys Gln Asp Leu Ala Asp Lys Leu Ile Ser Leu Phe Tyr Gly Val Val
275 280 285

Thr Pro Met Leu Asn Pro Ile Ile Tyr Ser Leu Arg Asn Lys Asp Val
290 295 300

Arg Ala Ala Val Arg Asn Leu Val Gly Gln Lys His Leu Thr Glu
305 310 315

<210> 49

<211> 319

<212> PRT

<213> Mus musculus

<400> 49

Met Glu Arg Ser Asn Lys Thr Thr Pro Val Ser Ser Phe Ile Leu Leu
1 5 10 15

Gly Leu Ser Ala His Pro Lys Leu Glu Lys Thr Phe Phe Val Leu Ile
20 25 30

Leu Leu Met Tyr Leu Val Ile Leu Leu Gly Asn Val Val Leu Ile Leu
35 40 45

Val Ser Ile Leu Asp Ser His Leu His Thr Pro Met Tyr Phe Phe Leu
50 55 60

Gly Asn Leu Ser Phe Leu Asp Ile Cys Tyr Thr Thr Ser Ser Val Pro
 65 70 75 80
 Leu Ile Leu Asp Ser Phe Leu Thr Pro Arg Lys Thr Ile Ser Phe Ser
 85 90 95
 Gly Cys Ala Val Gln Met Phe Leu Ser Phe Ala Met Gly Ala Thr Glu
 100 105 110
 Cys Val Leu Leu Gly Met Met Ala Phe Asp Arg Tyr Val Ala Ile Cys
 115 120 125
 Asn Pro Leu Arg Tyr Pro Val Val Met Ser Lys Ala Ala Tyr Val Pro
 130 135 140
 Met Ala Ala Gly Ser Trp Val Ser Gly Ser Ile Thr Ala Thr Val Gln
 145 150 155 160
 Ile Ser Leu Ala Met Thr Leu Pro Phe Cys Gly Asp Asn Val Ile Asn
 165 170 175
 His Phe Thr Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp
 180 185 190
 Ile Ser Ile Asn Val Ile Ser Met Ala Val Ala Asn Ala Met Phe Leu
 195 200 205
 Gly Val Pro Val Leu Phe Ile Phe Val Ser Tyr Ile Phe Ile Leu Ser
 210 215 220
 Thr Ile Leu Arg Ile Pro Ser Ala Glu Gly Arg Lys Lys Ala Phe Ser
 225 230 235 240
 Thr Cys Ser Ala His Leu Thr Val Val Leu Val Phe Tyr Gly Thr Ile
 245 250 255
 Leu Phe Met Tyr Gly Lys Pro Lys Ser Lys Asp Pro Leu Gly Ala Asp
 260 265 270
 Lys Gln Asp Leu Ala Asp Lys Leu Ile Ser Leu Phe Tyr Gly Val Val
 275 280 285
 Thr Pro Met Leu Asn Pro Ile Ile Tyr Ser Leu Arg Asn Lys Asp Val
 290 295 300
 Lys Ala Ala Val Thr Asn Leu Val Gly Gln Lys His Phe Lys Trp
 305 310 315

<210> 50
 <211> 766
 <212> DNA
 <213> Homo sapiens

<400> 50
 gtcagcctcc aatatcacct taacacatcc aactgccttc ttgttggtgg ggattccagg 60

cctggAACAC ctgcacatct ggatctccat ccctttctgc ttagcatgta cactggccct 120
 gcttggAAAC tgcactctcc ttctccatcat ccaggctgat gcagccctcc atgaaccat 180
 gtaccccttt ctggccatgt tggcagccat cgacactggtc cttccctct cagcactgcc 240
 caagatgctt gccatattct ggttcaggga tcgggagata aacttcttg cctgtctggc 300
 ccagatgttc ttcccttcaact ccttccatcat ggaggatca gcagtgtgc tggccatggc 360
 ctttgaccgc tatgtggcata tctgcaagcc actgcactac accaagggtcc tgactgggtc 420
 cctcatcacc aagattttta ttgtgtgtt ggacctgctc cttgttatcc tgtcttatat 480
 ctttattctt caggcagttc tactgcttgc ctctcaggag gcccgtaca aggcatttgg 540
 gacatgtgtc tctcatatag gtgcattctt agccttctac acaactgtgg tcattcttc 600
 agtcatgcac cgtgttagccc gccatgctgc ccctcatgtc cacatcctcc ttaccaattt 660
 ctatctgctc ttcccaccca tggtaatcc cataatctat ggtgtcaaga ccaagcaaat 720
 ccgtgagagc atcttgggag tatttccaag aaaggatatg tagagg 766

<210> 51
 <211> 253
 <212> PRT
 <213> Homo sapiens

<400> 51
 Ser Ala Ser Asn Ile Thr Leu Thr His Pro Thr Ala Phe Leu Leu Val
 1 5 10 15
 Gly Ile Pro Gly Leu Glu His Leu His Ile Trp Ile Ser Ile Pro Phe
 20 25 30
 Cys Leu Ala Cys Thr Leu Ala Leu Leu Gly Asn Cys Thr Leu Leu Leu
 35 40 45
 Ile Ile Gln Ala Asp Ala Ala Leu His Glu Pro Met Tyr Leu Phe Leu
 50 55 60
 Ala Met Leu Ala Ala Ile Asp Leu Val Leu Ser Ser Ser Ala Leu Pro
 65 70 75 80
 Lys Met Leu Ala Ile Phe Trp Phe Arg Asp Arg Glu Ile Asn Phe Phe
 85 90 95
 Ala Cys Leu Ala Gln Met Phe Phe Leu His Ser Phe Ser Ile Met Glu
 100 105 110
 Ser Ala Val Leu Leu Ala Met Ala Phe Asp Arg Tyr Val Ala Ile Cys
 115 120 125
 Lys Pro Leu His Tyr Thr Lys Val Leu Thr Gly Ser Leu Ile Thr Lys
 130 135 140
 Ile Phe Ile Val Val Leu Asp Leu Leu Leu Val Ile Leu Ser Tyr Ile
 145 150 155 160
 Phe Ile Leu Gln Ala Val Leu Leu Leu Ala Ser Gln Glu Ala Arg Tyr
 165 170 175
 Lys Ala Phe Gly Thr Cys Val Ser His Ile Gly Ala Ile Leu Ala Phe
 180 185 190
 Tyr Thr Thr Val Val Ile Ser Ser Val Met His Arg Val Ala Arg His

195	200	205
Ala Ala Pro His Val His Ile Leu Leu Thr Asn Phe Tyr Leu Leu Phe		
210	215	220
Pro Pro Met Val Asn Pro Ile Ile Tyr Gly Val Lys Thr Lys Gln Ile		
225	230	235
Arg Glu Ser Ile Leu Gly Val Phe Pro Arg Lys Asp Met		
245	250	
<210> 52		
<211> 321		
<212> PRT		
<213> Mus musculus		
<400> 52		
Met Asn Ser Lys Ala Ser Met Leu Gly Thr Asn Phe Thr Ile Ile His		
1	5	10
Pro Thr Val Phe Ile Leu Leu Gly Ile Pro Gly Leu Glu Gln Tyr His		
20	25	30
Thr Trp Leu Ser Ile Pro Phe Cys Leu Met Tyr Ile Ala Ala Val Leu		
35	40	45
Gly Asn Gly Ala Leu Ile Leu Val Val Leu Ser Glu Arg Thr Leu His		
50	55	60
Glu Pro Met Tyr Val Phe Leu Ser Met Leu Ala Gly Thr Asp Ile Leu		
65	70	75
80		
Leu Ser Thr Thr Val Pro Lys Thr Leu Ala Ile Phe Trp Phe His		
85	90	95
Ala Gly Glu Ile Pro Phe Asp Ala Cys Ile Ala Gln Met Phe Phe Ile		
100	105	110
His Val Ala Phe Val Ala Glu Ser Gly Ile Leu Leu Ala Met Ala Phe		
115	120	125
Asp Arg Tyr Val Ala Ile Cys Thr Pro Leu Arg Tyr Ser Ala Val Leu		
130	135	140
Thr Pro Met Ala Ile Gly Lys Met Thr Leu Ala Ile Trp Gly Arg Ser		
145	150	155
160		
Ile Gly Thr Ile Phe Pro Ile Ile Phe Leu Leu Lys Arg Leu Ser Tyr		
165	170	175
Cys Arg Thr Asn Val Ile Pro His Ser Tyr Cys Glu His Ile Gly Val		
180	185	190
Ala Arg Leu Ala Cys Ala Asp Ile Thr Val Asn Ile Trp Tyr Gly Phe		
195	200	205

Ser Val Pro Met Ala Ser Val Leu Val Asp Val Ala Leu Ile Gly Ile
 210 215 220
 Ser Tyr Thr Leu Ile Leu Gln Ala Val Phe Arg Leu Pro Ser Gln Asp
 225 230 235 240
 Ala Arg His Lys Ala Leu Asn Thr Cys Gly Ser His Ile Gly Val Ile
 245 250 255
 Leu Leu Phe Phe Ile Pro Ser Phe Phe Thr Phe Leu Thr His Arg Phe
 260 265 270
 Gly Lys Asn Ile Pro His His Val His Ile Leu Leu Ala Asn Leu Tyr
 275 280 285
 Val Leu Val Pro Pro Met Leu Asn Pro Ile Ile Tyr Gly Ala Lys Thr
 290 295 300
 Lys Gln Ile Arg Asp Ser Met Thr Arg Met Leu Ser Val Val Trp Lys
 305 310 315 320
 Ser

<210> 53
 <211> 320
 <212> PRT
 <213> Rattus norvegicus

<400> 53
 Met Ser Ser Cys Asn Phe Thr His Ala Thr Phe Met Leu Ile Gly Ile
 1 5 10 15
 Pro Gly Leu Glu Glu Ala His Phe Trp Phe Gly Phe Pro Leu Leu Ser
 20 25 30
 Met Tyr Ala Val Ala Leu Phe Gly Asn Cys Ile Val Val Phe Ile Val
 35 40 45
 Arg Thr Glu Arg Ser Leu His Ala Pro Met Tyr Leu Phe Leu Cys Met
 50 55 60
 Leu Ala Ala Ile Asp Leu Ala Leu Ser Thr Ser Thr Met Pro Lys Ile
 65 70 75 80
 Leu Ala Leu Phe Trp Phe Asp Ser Arg Glu Ile Thr Phe Asp Ala Cys
 85 90 95
 Leu Ala Gln Met Phe Phe Ile His Ala Leu Ser Ala Ile Glu Ser Thr
 100 105 110
 Ile Leu Leu Ala Met Ala Phe Asp Arg Tyr Val Ala Ile Cys His Pro
 115 120 125
 Leu Arg His Ala Ala Val Leu Asn Asn Thr Val Thr Val Gln Ile Gly
 130 135 140

Met Val Ala Leu Val Arg Gly Ser Leu Phe Phe Pro Leu Pro Leu
 145 150 155 160
 Leu Ile Lys Arg Leu Ala Phe Cys His Ser Asn Val Leu Ser His Ser
 165 170 175
 Tyr Cys Val His Gln Asp Val Met Lys Leu Ala Tyr Thr Asp Thr Leu
 180 185 190
 Pro Asn Val Val Tyr Gly Leu Thr Ala Ile Leu Leu Val Met Gly Val
 195 200 205
 Asp Val Met Phe Ile Ser Leu Ser Tyr Phe Leu Ile Ile Arg Ala Val
 210 215 220
 Leu Gln Leu Pro Ser Lys Ser Glu Arg Ala Lys Ala Phe Gly Thr Cys
 225 230 235 240
 Val Ser His Ile Gly Val Val Leu Ala Phe Tyr Val Pro Leu Ile Gly
 245 250 255
 Leu Ser Val Val His Arg Phe Gly Asn Ser Leu Asp Pro Ile Val His
 260 265 270
 Val Leu Met Gly Asp Val Tyr Leu Leu Leu Pro Pro Val Ile Asn Pro
 275 280 285
 Ile Ile Tyr Gly Ala Lys Thr Lys Gln Ile Arg Thr Arg Val Leu Ala
 290 295 300
 Met Phe Lys Ile Ser Cys Asp Lys Asp Ile Glu Ala Gly Gly Asn Thr
 305 310 315 320

<210> 54
 <211> 326
 <212> PRT
 <213> Mus musculus

<400> 54
 Met Lys Val Ala Ser Ser Phe His Asn Asp Thr Asn Pro Gln Asp Val
 1 5 10 15
 Trp Tyr Val Leu Ile Gly Ile Pro Gly Leu Glu Asp Leu His Ser Trp
 20 25 30
 Ile Ala Ile Pro Ile Cys Ser Met Tyr Ile Val Ala Val Ile Gly Asn
 35 40 45
 Val Leu Leu Ile Phe Leu Ile Val Thr Glu Arg Ser Leu His Glu Pro
 50 55 60
 Met Tyr Phe Phe Leu Ser Met Leu Ala Leu Ala Asp Leu Leu Ser

65	70	75	80
Thr Ala Thr Ala Pro Lys Met Leu Ala Ile Phe Trp Phe His Ser Arg			
85	90	95	
Gly Ile Ser Phe Gly Ser Cys Val Ser Gln Met Phe Phe Ile His Phe			
100	105	110	
Ile Phe Val Ala Glu Ser Ala Ile Leu Leu Ala Met Ala Phe Asp Arg			
115	120	125	
Tyr Val Ala Ile Cys Tyr Pro Leu Arg Tyr Thr Thr Ile Leu Thr Ser			
130	135	140	
Ser Val Ile Gly Lys Ile Gly Thr Ala Ala Val Val Arg Ser Phe Leu			
145	150	155	160
Ile Cys Phe Pro Phe Ile Phe Leu Val Tyr Arg Leu Leu Tyr Cys Gly			
165	170	175	
Lys His Ile Ile Pro His Ser Tyr Cys Glu His Met Gly Ile Ala Arg			
180	185	190	
Leu Ala Cys Asp Asn Ile Thr Val Asn Ile Ile Tyr Gly Leu Thr Met			
195	200	205	
Ala Leu Leu Ser Thr Gly Leu Asp Ile Leu Leu Ile Ile Ser Tyr			
210	215	220	
Thr Met Ile Leu Arg Thr Val Phe Gln Ile Pro Ser Trp Ala Ala Arg			
225	230	235	240
Tyr Lys Ala Leu Asn Thr Cys Gly Ser His Ile Cys Val Ile Leu Leu			
245	250	255	
Phe Tyr Thr Pro Ala Phe Phe Ser Phe Phe Ala His Arg Phe Gly Gly			
260	265	270	
Lys Thr Val Pro Arg His Ile His Ile Leu Val Ala Asn Leu Tyr Val			
275	280	285	
Val Val Pro Pro Met Leu Asn Pro Ile Ile Tyr Gly Val Lys Thr Lys			
290	295	300	
Gln Ile Gln Asp Arg Val Val Phe Leu Phe Ser Ser Val Ser Thr Cys			
305	310	315	320
Gln His Asp Ser Arg Cys			
325			

<210> 55
 <211> 320
 <212> PRT
 <213> Homo sapiens

<400> 55

Met Ser Ser Cys Asn Phe Thr His Ala Thr Phe Val Leu Ile Gly Ile
 1 5 10 15

Pro Gly Leu Glu Lys Ala His Phe Trp Val Gly Phe Pro Leu Leu Ser
 20 25 30

Met Tyr Val Val Ala Met Phe Gly Asn Cys Ile Val Val Phe Ile Val
 35 40 45

Arg Thr Glu Arg Ser Leu His Ala Pro Met Tyr Leu Phe Leu Cys Met
 50 55 60

Leu Ala Ala Ile Asp Leu Ala Leu Ser Thr Ser Thr Met Pro Lys Ile
 65 70 75 80

Leu Ala Leu Phe Trp Phe Asp Ser Arg Glu Ile Ser Phe Glu Ala Cys
 85 90 95

Leu Thr Gln Met Phe Phe Ile His Ala Leu Ser Ala Ile Glu Ser Thr
 100 105 110

Ile Leu Leu Ala Met Ala Phe Asp Arg Tyr Val Ala Ile Cys His Pro
 115 120 125

Leu Arg His Ala Ala Val Leu Asn Asn Thr Val Thr Ala Gln Ile Gly
 130 135 140

Ile Val Ala Val Val Arg Gly Ser Leu Phe Phe Pro Leu Pro Leu
 145 150 155 160

Leu Ile Lys Arg Leu Ala Phe Cys His Ser Asn Val Leu Ser His Ser
 165 170 175

Tyr Cys Val His Gln Asp Val Met Lys Leu Ala Tyr Ala Asp Thr Leu
 180 185 190

Pro Asn Val Val Tyr Gly Leu Thr Ala Ile Leu Leu Val Met Gly Val
 195 200 205

Asp Val Met Phe Ile Ser Leu Ser Tyr Phe Leu Ile Ile Arg Thr Val
 210 215 220

Leu Gln Leu Pro Ser Lys Ser Glu Arg Ala Lys Ala Phe Gly Thr Cys
 225 230 235 240

Val Ser His Ile Gly Val Val Leu Ala Phe Tyr Val Pro Leu Ile Gly
 245 250 255

Leu Ser Val Val His Arg Phe Gly Asn Ser Leu His Pro Ile Val Arg
 260 265 270

Val Val Met Gly Asp Ile Tyr Leu Leu Leu Pro Pro Val Ile Asn Pro
 275 280 285

Ile Ile Tyr Gly Ala Lys Thr Lys Gln Ile Arg Thr Arg Val Leu Ala
 290 295 300

Met Phe Lys Ile Ser Cys Asp Lys Asp Leu Gln Ala Val Gly Gly Lys
 305 310 315 320

<210> 56
 <211> 318
 <212> PRT
 <213> Homo sapiens

<400> 56
 Met Ser Asp Ser Asn Leu Ser Asp Asn His Leu Pro Asp Thr Phe Phe
 1 5 10 15

Leu Thr Gly Ile Pro Gly Leu Glu Ala Ala His Phe Trp Ile Ala Ile
 20 25 30

Pro Phe Cys Ala Met Tyr Leu Val Ala Leu Val Gly Asn Ala Ala Leu
 35 40 45

Ile Leu Val Ile Ala Met Asp Asn Ala Leu His Ala Pro Met Tyr Leu
 50 55 60

Phe Leu Cys Leu Leu Ser Leu Thr Asp Leu Ala Leu Ser Ser Thr Thr
 65 70 75 80

Val Pro Lys Met Leu Ala Ile Leu Trp Leu His Ala Gly Glu Ile Ser
 85 90 95

Phe Gly Gly Cys Leu Ala Gln Met Phe Cys Val His Ser Ile Tyr Ala
 100 105 110

Leu Glu Ser Ser Ile Leu Leu Ala Met Ala Phe Asp Arg Tyr Val Ala
 115 120 125

Ile Cys Asn Pro Leu Arg Tyr Thr Thr Ile Leu Asn His Ala Val Ile
 130 135 140

Gly Arg Ile Gly Phe Val Gly Leu Phe Arg Ser Val Ala Ile Val Ser
 145 150 155 160

Pro Phe Ile Phe Leu Leu Arg Arg Leu Pro Tyr Cys Gly His Arg Val
 165 170 175

Met Thr His Thr Tyr Cys Glu His Met Gly Ile Ala Arg Leu Ala Cys
 180 185 190

Ala Asn Ile Thr Val Asn Ile Val Tyr Gly Leu Thr Val Ala Leu Leu
 195 200 205

Ala Met Gly Leu Asp Ser Ile Leu Ile Ala Ile Ser Tyr Gly Phe Ile
 210 215 220

Leu His Ala Val Phe His Leu Pro Ser His Asp Ala Gln His Lys Ala
 225 230 235 240

Leu Ser Thr Cys Gly Ser His Ile Gly Ile Ile Leu Val Phe Tyr Ile
245 250 255

Pro Ala Phe Phe Ser Phe Leu Thr His Arg Phe Gly His His Glu Val
260 265 270

Pro Lys His Val His Ile Phe Leu Ala Asn Leu Tyr Val Leu Val Pro
275 280 285

Pro Val Leu Asn Pro Ile Leu Tyr Gly Ala Arg Thr Lys Glu Ile Arg
290 295 300

Ser Arg Leu Leu Lys Leu Leu His Leu Gly Lys Thr Ser Ile
305 310 315

<210> 57

<211> 1000

<212> DNA

<213> Homo sapiens

<400> 57

ccatggaggc tgccaatgag tcttcagagg gaatctcatt cgtttattg ggactgacaa 60
caagtcctgg acagcagcgg cctcttttgc tgctgttctt gctctgtat gtggccagcc 120
tcctgggcaa tggactcatt gtggctgcca tccaggccag tccagccctt catgcaccca 180
tgtacttcct gctggcccac ctgtcctttgc ctgacctctg cttcgctcc gtcactgtgc 240
ccaagatgtt ggccaacttg ttggccatg accactccat ctcgctggct ggctgcctga 300
cccaaatgtt cttcttctt gcccgggggg taactgtatag ctgtcttctg gcggccatgg 360
cctatgactg ctacgtggcc atccggcacc ccctccctta tgccacgagg atgtccggg 420
ccatgtgcgc agccctggtg ggaatggcat ggctgggtc ccacgtccac tccctcctgt 480
atatcctgct catggctcgc ttgtccttctt gtgcttccca ccaagtgcac cacttcttct 540
gtgaccacca gcctctctta aggctctgt gctctgacac ccaccacatc cagctgctca 600
tcttcaccga gggcgccgca gtgggtgtca ctcccttctt gtcatcctc gcctcctatg 660
gggcacatcgc agctgcccgtc ctccagctgc cctcagccctc tggaggctc cgggctgtgt 720
ccacctgtgg ctcccacctg gctgtgggtga gcctcttcta tggacagtc attgcagtc 780
acttccaggc cacatcccgaa cgccggccag agtggggccg tggccact gtcatgtaca 840
ctgttagtcac ccccatgctg aacccatca tctacagccct ctgaatcgc gatgtacagg 900
gggcacactcg agcccttctc attgggcgaa ggatctcagc tagtgactcc tgagggcagg 960
acccactga ggacagactg catcacccac actggcaact 1000

<210> 58

<211> 316

<212> PRT

<213> Homo sapiens

<400> 58

Met Glu Ala Ala Asn Glu Ser Ser Glu Gly Ile Ser Phe Val Leu Leu
1 5 10 15

Gly Leu Thr Thr Ser Pro Gly Gln Gln Arg Pro Leu Phe Val Leu Phe
20 25 30

Leu Leu Leu Tyr Val Ala Ser Leu Leu Gly Asn Gly Leu Ile Val Ala
35 40 45

Ala Ile Gln Ala Ser Pro Ala Leu His Ala Pro Met Tyr Phe Leu Leu
 50 55 60
 Ala His Leu Ser Phe Ala Asp Leu Cys Phe Ala Ser Val Thr Val Pro
 65 70 75 80
 Lys Met Leu Ala Asn Leu Leu Ala His Asp His Ser Ile Ser Leu Ala
 85 90 95
 Gly Cys Leu Thr Gln Met Tyr Phe Phe Ala Leu Gly Val Thr Asp
 100 105 110
 Ser Cys Leu Leu Ala Ala Met Ala Tyr Asp Cys Tyr Val Ala Ile Arg
 115 120 125
 His Pro Leu Pro Tyr Ala Thr Arg Met Ser Arg Ala Met Cys Ala Ala
 130 135 140
 Leu Val Gly Met Ala Trp Leu Val Ser His Val His Ser Leu Leu Tyr
 145 150 155 160
 Ile Leu Leu Met Ala Arg Leu Ser Phe Cys Ala Ser His Gln Val Pro
 165 170 175
 His Phe Phe Cys Asp His Gln Pro Leu Leu Arg Leu Ser Cys Ser Asp
 180 185 190
 Thr His His Ile Gln Leu Leu Ile Phe Thr Glu Gly Ala Ala Val Val
 195 200 205
 Val Thr Pro Phe Leu Leu Ile Leu Ala Ser Tyr Gly Ala Ile Ala Ala
 210 215 220
 Ala Val Leu Gln Leu Pro Ser Ala Ser Gly Arg Leu Arg Ala Val Ser
 225 230 235 240
 Thr Cys Gly Ser His Leu Ala Val Val Ser Leu Phe Tyr Gly Thr Val
 245 250 255
 Ile Ala Val Tyr Phe Gln Ala Thr Ser Arg Arg Glu Ala Glu Trp Gly
 260 265 270
 Arg Val Ala Thr Val Met Tyr Thr Val Val Thr Pro Met Leu Asn Pro
 275 280 285
 Ile Ile Tyr Ser Leu Trp Asn Arg Asp Val Gln Gly Ala Leu Arg Ala
 290 295 300
 Leu Leu Ile Gly Arg Arg Ile Ser Ala Ser Asp Ser
 305 310 315
 <210> 59
 <211> 991
 <212> DNA
 <213> Homo sapiens

<400> 59

ccatggaggc tgccaatgag tcttcagagg gaatctcatt cgtttattg ggactgacaa 60
caagtcctgg acagcagcgg cctcttttgc tgctgttctt gctctgtat gtggccagcc 120
tcctggtaa tggactcatt gtggctgcca tccaggccag tccagccctt catgcaccca 180
tgtacttcct gctggccac ctgtcctttg ctgacctctg ctgcgcctcc gtcactgtgc 240
ccaagatgtt gccaacttg ttggccatg accactccat ctcgctggct ggctgcctga 300
cccaaatgtt cttttctt gcccggggg taactgatag ctgtcttctg gcccgcattgg 360
cctatgactg ctacgtggcc atccggcacc ccctcccttgc tgccacgagg atgtcccg 420
ccatgtgcgc agccctggg ggaatggcat ggctgggtc ccacgtccac tccctcctgt 480
atatcctgct catggctcgc ttgtccttct gtgcctccca ccaagtgcac cacttcttct 540
gtgaccacca gccccttta aggctctcg tctgtacac ccaccacatc cagctgctca 600
tcttcaccga gggcgccgca gtgggttca ctcccttct gtcacccctc gcctccatgg 660
gggcacatcgc agctgcccgtg ctccagctgc cctcagcctc tggaggctc cgggctgtgt 720
ccacccgtgg ctcccccacccgt gctgtggta gccttctta tggacagtc attgcagtct 780
acttccaggc cacatcccgaa cgcgaggcag agtggggccg tggccact gtcatgtaca 840
ctgttagtcac ccccatcgta aacccatca tctacagccct ctggaaatcgc gatgtacagg 900
gggcactccg agcccttctc attggcgaa ggatctcagc tagtgactcc tgagggcagg 960
acccactga ggacagactg catcacccac a 991

<210> 60

<211> 316

<212> PRT

<213> Homo sapiens

<400> 60

Met Glu Ala Ala Asn Glu Ser Ser Glu Gly Ile Ser Phe Val Leu Leu
1 5 10 15

Gly Leu Thr Thr Ser Pro Gly Gln Gln Arg Pro Leu Phe Val Leu Phe
20 25 30

Leu Leu Leu Tyr Val Ala Ser Leu Leu Gly Asn Gly Leu Ile Val Ala
35 40 45

Ala Ile Gln Ala Ser Pro Ala Leu His Ala Pro Met Tyr Phe Leu Leu
50 55 60

Ala His Leu Ser Phe Ala Asp Leu Cys Phe Ala Ser Val Thr Val Pro
65 70 75 80

Lys Met Leu Ala Asn Leu Leu Ala His Asp His Ser Ile Ser Leu Ala
85 90 95

Gly Cys Leu Thr Gln Met Tyr Phe Phe Ala Leu Gly Val Thr Asp
100 105 110

Ser Cys Leu Leu Ala Ala Met Ala Tyr Asp Cys Tyr Val Ala Ile Arg
115 120 125

His Pro Leu Pro Tyr Ala Thr Arg Met Ser Arg Ala Met Cys Ala Ala
130 135 140

Leu Val Gly Met Ala Trp Leu Val Ser His Val His Ser Leu Leu Tyr
145 150 155 160

Ile Leu Leu Met Ala Arg Leu Ser Phe Cys Ala Ser His Gln Val Pro

165	170	175
His Phe Phe Cys Asp His Gln Pro Leu Leu Arg Leu Ser Cys Ser Asp		
180	185	190
Thr His His Ile Gln Leu Leu Ile Phe Thr Glu Gly Ala Ala Val Val		
195	200	205
Val Thr Pro Phe Leu Leu Ile Leu Ala Ser Tyr Gly Ala Ile Ala Ala		
210	215	220
Ala Val Leu Gln Leu Pro Ser Ala Ser Gly Arg Leu Arg Ala Val Ser		
225	230	235
Thr Cys Gly Ser His Leu Ala Val Val Ser Leu Phe Tyr Gly Thr Val		
245	250	255
Ile Ala Val Tyr Phe Gln Ala Thr Ser Arg Arg Glu Ala Glu Trp Gly		
260	265	270
Arg Val Ala Thr Val Met Tyr Thr Val Val Thr Pro Met Leu Asn Pro		
275	280	285
Ile Ile Tyr Ser Leu Trp Asn Arg Asp Val Gln Gly Ala Leu Arg Ala		
290	295	300
Leu Leu Ile Gly Arg Arg Ile Ser Ala Ser Asp Ser		
305	310	315
<210> 61		
<211> 216		
<212> PRT		
<213> Homo sapiens		
<400> 61		
Phe Ala Asp Leu Cys Phe Ala Ser Val Thr Val Pro Lys Met Leu Ala		
1	5	10
15		
Asn Leu Leu Ala His Asp His Ser Ile Ser Leu Ala Gly Cys Leu Thr		
20	25	30
Gln Met Tyr Phe Phe Ala Leu Gly Val Thr Asp Ser Cys Leu Leu		
35	40	45
Ala Ala Met Ala Tyr Asp Cys Tyr Val Ala Ile Arg His Pro Leu Pro		
50	55	60
Tyr Ala Thr Arg Met Ser Arg Ala Met Cys Ala Ala Leu Val Gly Met		
65	70	75
80		
Ala Trp Leu Val Ser His Val His Ser Leu Leu Tyr Ile Leu Leu Met		
85	90	95
Ala Arg Leu Ser Phe Cys Ala Ser His Gln Val Pro His Phe Phe Cys		
100	105	110

Asp His Gln Pro Leu Leu Arg Leu Ser Cys Ser Asp Thr His His Ile
115 120 125

Gln Leu Leu Ile Phe Thr Glu Gly Ala Ala Val Val Val Thr Pro Phe
130 135 140

Leu Leu Ile Leu Ala Ser Tyr Gly Ala Ile Ala Ala Ala Val Leu Gln
145 150 155 160

Leu Pro Ser Ala Ser Gly Arg Leu Arg Ala Val Ser Thr Cys Gly Ser
165 170 175

His Leu Ala Val Val Ser Leu Phe Tyr Gly Thr Val Ile Ala Val Tyr
180 185 190

Phe Gln Ala Thr Ser Arg Arg Glu Ala Glu Trp Gly Arg Val Ala Thr
195 200 205

Val Met Tyr Thr Val Val Thr Pro
210 215

<210> 62

<211> 299

<212> PRT

<213> Rattus norvegicus

<400> 62

Met Ser Ser Thr Asn Gln Ser Ser Val Thr Glu Phe Leu Leu Leu Gly
1 5 10 15

Leu Ser Arg Gln Pro Gln Gln Gln Leu Leu Phe Leu Leu Phe Leu
20 25 30

Ile Met Tyr Leu Ala Thr Val Leu Gly Asn Leu Leu Ile Ile Leu Ala
35 40 45

Ile Gly Thr Asp Ser Arg Leu His Thr Pro Met Tyr Phe Phe Leu Ser
50 55 60

Asn Leu Ser Phe Val Asp Val Cys Phe Ser Ser Thr Thr Val Pro Lys
65 70 75 80

Val Leu Ala Asn His Ile Leu Gly Ser Gln Ala Ile Ser Phe Ser Gly
85 90 95

Cys Leu Thr Gln Leu Tyr Phe Leu Ala Val Phe Gly Asn Met Asp Asn
100 105 110

Phe Leu Leu Ala Val Met Ser Tyr Asp Arg Phe Val Ala Ile Cys His
115 120 125

Pro Leu His Tyr Thr Thr Lys Met Thr Arg Gln Leu Cys Val Leu Leu
130 135 140

Val Val Gly Ser Trp Val Val Ala Asn Met Asn Cys Leu Leu His Ile
145 150 155 160

Leu Leu Met Ala Arg Leu Ser Phe Cys Ala Asp Asn Met Ile Pro His
 165 170 175
 Phe Phe Cys Asp Gly Thr Pro Leu Leu Lys Leu Ser Cys Ser Asp Thr
 180 185 190
 His Leu Asn Glu Leu Met Ile Leu Thr Glu Gly Ala Val Val Met Val
 195 200 205
 Thr Pro Phe Val Cys Ile Leu Ile Ser Tyr Ile His Ile Thr Cys Ala
 210 215 220
 Val Leu Arg Val Ser Ser Pro Arg Gly GLY Trp Lys Ser Phe Ser Thr
 225 230 235 240
 Cys Gly Ser His Leu Ala Val Val Cys Leu Phe Tyr Gly Thr Val Ile
 245 250 255
 Ala Val Tyr Phe Asn Pro Ser Ser His Leu Ala Gly Arg Asp Met
 260 265 270
 Ala Ala Ala Val Met Tyr Ala Val Val Thr Pro Met Leu Asn Pro Phe
 275 280 285
 Ile Tyr Ser Leu Arg Asn Ser Asp Met Lys Ala
 290 295

<210> 63
 <211> 313
 <212> PRT
 <213> Rattus norvegicus

<400> 63
 Met Ser Ser Thr Asn Gln Ser Ser Val Thr Glu Phe Leu Leu Leu Gly
 1 5 10 15
 Leu Ser Arg Gln Pro Gln Gln Gln Leu Leu Phe Leu Leu Phe Leu
 20 25 30
 Ile Met Tyr Leu Ala Thr Val Leu Gly Asn Leu Leu Ile Ile Leu Ala
 35 40 45
 Ile Gly Thr Asp Ser Arg Leu His Thr Pro Met Tyr Phe Phe Leu Ser
 50 55 60
 Asn Leu Ser Phe Val Asp Val Cys Phe Ser Ser Thr Thr Val Pro Lys
 65 70 75 80
 Val Leu Ala Asn His Ile Leu Gly Ser Gln Ala Ile Ser Phe Ser Gly
 85 90 95
 Cys Leu Thr Gln Leu Tyr Phe Leu Ala Val Phe Gly Asn Met Asp Asn
 100 105 110
 Phe Leu Leu Ala Val Met Ser Tyr Asp Arg Phe Val Ala Ile Cys His

Asn Leu Ser Phe Val Asp Ile Cys Phe Ser Phe Thr Thr Val Pro Lys
 65 70 75 80
 Met Leu Ala Asn His Ile Leu Glu Thr Gln Thr Ile Ser Phe Cys Gly
 85 90 95
 Cys Leu Thr Gln Met Tyr Phe Val Phe Met Phe Val Asp Met Asp Asn
 100 105 110
 Phe Leu Leu Ala Val Met Ala Tyr Asp His Phe Val Ala Val Cys His
 115 120 125
 Pro Leu His Tyr Thr Ala Lys Met Thr His Gln Leu Cys Ala Leu Leu
 130 135 140
 Val Ala Gly Leu Trp Val Val Ala Asn Leu Asn Val Leu Leu His Thr
 145 150 155 160
 Leu Leu Met Ala Pro Leu Ser Phe Cys Ala Asp Asn Ala Ile Thr His
 165 170 175
 Phe Phe Cys Asp Val Thr Pro Leu Leu Lys Leu Ser Cys Ser Asp Thr
 180 185 190
 His Leu Asn Glu Val Ile Ile Leu Ser Glu Gly Ala Leu Val Met Ile
 195 200 205
 Thr Pro Phe Leu Cys Ile Leu Ala Ser Tyr Met His Ile Thr Cys Thr
 210 215 220 225
 Val Leu Lys Val Pro Ser Thr Lys Gly Arg Trp Lys Ala Phe Ser Thr
 230 235 240
 Cys Gly Ser His Leu Ala Val Val Leu Leu Phe Tyr Ser Thr Ile Ile
 245 250 255
 Ala Val Tyr Phe Asn Pro Leu Ser Ser His Ser Ala Glu Lys Asp Thr
 260 265 270
 Met Ala Thr Val Leu Tyr Thr Val Val Thr Pro Met Leu Asn Pro Phe
 275 280 285
 Ile Tyr Ser Leu Arg Asn Arg Tyr Leu Lys Gly Ala Leu Lys Lys Val
 290 295 300
 Val Gly Arg Val Val Phe Ser Val
 305 310

<210> 65
 <211> 314
 <212> PRT
 <213> Pan troglodytes
 <220>
 <221> VARIANT
 <222> (1)...(314)

<223> Wherein Xaa is any amino acid as defined in the specification

<400> 65

Met Met Gly Gln Asn Gln Thr Ser Ile Ser Asp Phe Leu Leu Leu Gly
1 5 10 15

Leu Pro Ile Gln Pro Glu Gln Gln Asn Leu Cys Tyr Ala Leu Phe Leu
20 25 30

Ala Met Tyr Leu Thr Thr Leu Leu Gly Asn Leu Leu Ile Ile Val Leu
35 40 45

Ile Arg Leu Asp Ser His Leu His Thr Pro Met Tyr Leu Phe Leu Ser
50 55 60

Asn Leu Ser Phe Ser Asp Leu Cys Phe Ser Ser Val Thr Ile Pro Lys
65 70 75 80

Leu Leu Gln Asn Met Gln Asn Gln Asp Pro Ser Ile Pro Tyr Ala Asp
85 90 95

Cys Leu Thr Gln Met Tyr Phe Phe Leu Leu Phe Gly Asp Leu Glu Ser
100 105 110

Phe Leu Leu Val Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Phe
115 120 125

Pro Leu His Tyr Thr Ala Ile Met Ser Pro Met Leu Cys Leu Ser Leu
130 135 140

Val Ala Leu Ser Trp Val Leu Thr Thr Phe His Ala Met Leu His Thr
145 150 155 160

Leu Leu Met Ala Arg Leu Cys Phe Cys Ala Asp Asn Val Ile Pro His
165 170 175

Phe Phe Cys Asp Met Ser Ala Leu Leu Lys Leu Ala Cys Ser Asp Thr
180 185 190

Arg Val Asn Glu Trp Val Ile Phe Ile Met Gly Gly Leu Ile Val Val
195 200 205

Ile Pro Phe Leu Leu Ile Leu Gly Ser Tyr Ala Arg Ile Val Ser Ser
210 215 220

Ile Leu Lys Val Pro Ser Ser Lys Gly Ile Cys Lys Ala Phe Ser Thr
225 230 235 240

Cys Gly Ser His Leu Ser Val Val Ser Leu Phe Tyr Gly Thr Ile Ile
245 250 255

Gly Leu Tyr Leu Cys Pro Ser Ala Asn Ser Ser Thr Leu Lys Glu Thr
260 265 270

Val Met Ala Met Met Tyr Thr Val Val Thr Pro Met Leu Asn Pro Phe
275 280 285

Ile Tyr Ser Leu Arg Asn Arg Asp Met Lys Gly Ala Leu Glu Arg Val
290 295 300

Ile Xaa Lys Arg Lys Asn Pro Phe Leu Leu
305 310

<210> 66
<211> 1022
<212> DNA
<213> Homo sapiens

<400> 66
tctctgtttc ctcagggatt gagaaagggg acaatgtggc agaagaatca gacctctctg 60
gcagacttca tccttgaggg gctcttcgtat gactccctta cccaccttt cttttctcc 120
ttgaccatgg tggcttcctt tattgcggtg agtggcaaca ccctcaccat tctcctcattc 180
tgcattgatc cccaaacttca tacaccaatg tatttcctgc tcagccagct ctccctcatg 240
gatctgatgc atgtctccac aatcatcctg aagatggcta ccaactacct atctggcaag 300
aaatctatct ccttgcgtgg ctgtcaacc cagcacttcc tctattgtg tctaggtgg 360
gctgaatgtt ttctttagc tgcattgtcc tatgaccgct atgttgcattt ctgtcatcca 420
ctgcgctatg ctgtgcctatc gaacaagaag gtgggactga tgcattgtgtt catgtcatgg 480
ttggggccat ccgtgaactc cctaatttccat atggcgatct tgcattgtt cccttctgt 540
gggccttcgga aagtctacca cttctactgt gagttccca gttttgtgaa gttggatgt 600
ggcgacatca ctgtgtatga gaccacagtg tacatcagca gcatttcctt cctccccc 660
atcttcctga ttcttacatc ctatgtcttc atccttcaaa gtgcattca gatgcgctca 720
tctgggagca agagaaaatgc ctttgcact tgcattgttcc acctcacggt gttttctt 780
tggtttggtg cctgcattt ctcctacatg agacccaggt cccagtgcac tctattgcag 840
aacaagatgg tttctgtgtt ctacagcatc attacgcctt cattgaattt tctgatttat 900
actctccgga ataaaagatgt agctaaggct ctgagaagag tgcattgtgtt agatgttattc 960
acccagtgcata ttcaacgact gcaattgtgg ttggcccgag tgcattgtgg aataggataa 1020
gc 1022

<210> 67
<211> 323
<212> PRT
<213> Homo sapiens

<400> 67
Met Trp Gln Lys Asn Gln Thr Ser Leu Ala Asp Phe Ile Leu Glu Gly
1 5 10 15

Leu Phe Asp Asp Ser Leu Thr His Leu Phe Leu Phe Ser Leu Thr Met
20 25 30

Val Val Phe Leu Ile Ala Val Ser Gly Asn Thr Leu Thr Ile Leu Leu
35 40 45

Ile Cys Ile Asp Pro Gln Leu His Thr Pro Met Tyr Phe Leu Leu Ser
50 55 60

Gln Leu Ser Leu Met Asp Leu Met His Val Ser Thr Ile Ile Leu Lys
65 70 75 80

Met Ala Thr Asn Tyr Leu Ser Gly Lys Ser Ile Ser Phe Val Gly
85 90 95

Cys Ala Thr Gln His Phe Leu Tyr Leu Cys Leu Gly Gly Ala Glu Cys
 100 105 110
 Phe Leu Leu Ala Val Met Ser Tyr Asp Arg Tyr Val Ala Ile Cys His
 115 120 125
 Pro Leu Arg Tyr Ala Val Leu Met Asn Lys Lys Val Gly Leu Met Met
 130 135 140
 Ala Val Met Ser Trp Leu Gly Ala Ser Val Asn Ser Leu Ile His Met
 145 150 155 160
 Ala Ile Leu Met His Phe Pro Phe Cys Gly Pro Arg Lys Val Tyr His
 165 170 175
 Phe Tyr Cys Glu Phe Pro Ala Val Val Lys Leu Val Cys Gly Asp Ile
 180 185 190
 Thr Val Tyr Glu Thr Thr Val Tyr Ile Ser Ser Ile Leu Leu Leu
 195 200 205
 Pro Ile Phe Leu Ile Ser Thr Ser Tyr Val Phe Ile Leu Gln Ser Val
 210 215 220
 Ile Gln Met Arg Ser Ser Gly Ser Lys Arg Asn Ala Phe Ala Thr Cys
 225 230 235 240
 Gly Ser His Leu Thr Val Val Ser Leu Trp Phe Gly Ala Cys Ile Phe
 245 250 255
 Ser Tyr Met Arg Pro Arg Ser Gln Cys Thr Leu Leu Gln Asn Lys Val
 260 265 270
 Gly Ser Val Phe Tyr Ser Ile Ile Thr Pro Thr Leu Asn Ser Leu Ile
 275 280 285
 Tyr Thr Leu Arg Asn Lys Asp Val Ala Lys Ala Leu Arg Arg Val Leu
 290 295 300
 Arg Arg Asp Val Ile Thr Gln Cys Ile Gln Arg Leu Gln Leu Trp Leu
 305 310 315 320
 Pro Arg Val

<210> 68
 <211> 311
 <212> PRT
 <213> Homo sapiens

<400> 68
 Met Glu Glu Tyr Asn Thr Ser Ser Thr Asp Phe Thr Phe Met Gly Leu
 1 5 10 15
 Phe Asn Arg Lys Glu Thr Ser Gly Leu Ile Phe Ala Ile Ile Ser Ile

20	25	30
Ile Phe Phe Thr Ala Leu Met Ala Asn Gly Val Met Ile Phe Leu Ile		
35	40	45
Gln Thr Asp Leu Arg Leu His Thr Pro Met Tyr Phe Leu Leu Ser His		
50	55	60
Leu Ser Leu Ile Asp Met Met Tyr Ile Ser Thr Ile Val Pro Lys Met		
65	70	75
80		
Leu Val Asn Tyr Leu Leu Asp Gln Arg Thr Ile Ser Phe Val Gly Cys		
85	90	95
Thr Ala Gln His Phe Leu Tyr Leu Thr Leu Val Gly Ala Glu Phe Phe		
100	105	110
Leu Leu Gly Leu Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn Pro		
115	120	125
Leu Arg Tyr Pro Val Leu Met Ser Arg Arg Val Cys Trp Met Ile Ile		
130	135	140
Ala Gly Ser Trp Phe Gly Gly Ser Leu Asp Gly Phe Leu Leu Thr Pro		
145	150	155
160		
Ile Thr Met Ser Phe Pro Phe Cys Asn Ser Arg Glu Ile Asn His Phe		
165	170	175
Phe Cys Glu Ala Pro Ala Val Leu Lys Leu Ala Cys Ala Asp Thr Ala		
180	185	190
Leu Tyr Glu Thr Val Met Tyr Val Cys Cys Val Leu Met Leu Leu Ile		
195	200	205
Pro Phe Ser Val Val Leu Ala Ser Tyr Ala Arg Ile Leu Thr Thr Val		
210	215	220
Gln Cys Met Ser Ser Val Glu Gly Arg Lys Lys Ala Phe Ala Thr Cys		
225	230	235
240		
Ser Ser His Met Thr Val Val Ser Leu Phe Tyr Gly Ala Ala Met Tyr		
245	250	255
Thr Tyr Met Leu Pro His Ser Tyr His Lys Pro Ala Gln Asp Lys Val		
260	265	270
Leu Ser Val Phe Tyr Thr Ile Leu Thr Pro Met Leu Asn Pro Leu Ile		
275	280	285
Tyr Ser Leu Arg Asn Lys Asp Val Thr Gly Ala Leu Lys Arg Ala Leu		
290	295	300
Gly Arg Phe Lys Gly Pro Gln		
305	310	

<210> 69
<211> 315
<212> PRT
<213> Homo sapiens

<400> 69
Met Gly Arg Trp Val Asn Gln Ser Tyr Thr Asp Gly Phe Phe Leu Leu
1 5 10 15
Gly Ile Phe Ser His Ser Gln Thr Asp Leu Val Leu Phe Ser Ala Val
20 25 30
Met Val Val Phe Thr Val Ala Leu Cys Gly Asn Val Leu Leu Ile Phe
35 40 45
Leu Ile Tyr Leu Asp Ala Gly Leu His Thr Pro Met Tyr Phe Phe Leu
50 55 60
Ser Gln Leu Ser Leu Met Asp Leu Met Leu Val Cys Asn Ile Val Pro
65 70 75 80
Lys Met Ala Ala Asn Phe Leu Ser Gly Arg Lys Ser Ile Ser Phe Val
85 90 95
Gly Cys Gly Ile Gln Ile Gly Phe Phe Val Ser Leu Val Gly Ser Glu
100 105 110
Gly Leu Leu Leu Gly Leu Met Ala Tyr Asp His Tyr Val Ala Val Ser
115 120 125
His Pro Leu His Tyr Pro Ile Leu Met Asn Gln Arg Val Cys Leu Gln
130 135 140
Ile Thr Gly Ser Ser Trp Ala Phe Gly Ile Ile Asp Gly Val Ile Gln
145 150 155 160
Met Val Ala Ala Met Gly Leu Pro Tyr Cys Gly Ser Arg Ser Val Asp
165 170 175
His Phe Phe Cys Glu Val Gln Ala Leu Leu Lys Leu Ala Cys Ala Asp
180 185 190
Thr Ser Leu Phe Asp Thr Leu Leu Phe Ala Cys Cys Val Phe Met Leu
195 200 205
Leu Leu Pro Phe Ser Ile Ile Met Ala Ser Tyr Ala Cys Ile Leu Gly
210 215 220
Ala Val Leu Arg Ile Arg Ser Ala Gln Ala Trp Lys Lys Ala Leu Ala
225 230 235 240
Thr Cys Ser Ser His Leu Thr Ala Val Thr Leu Phe Tyr Gly Ala Ala
245 250 255
Met Phe Met Tyr Leu Arg Pro Arg Arg Tyr Arg Ala Pro Ser His Asp
260 265 270

Lys Val Ala Ser Ile Phe Tyr Thr Val Leu Thr Pro Met Leu Asn Pro
 275 280 285
 Leu Ile Tyr Ser Leu Arg Asn Gly Glu Val Met Gly Ala Leu Arg Lys
 290 295 300
 Gly Leu Asp Arg Cys Arg Ile Gly Ser Gln His
 305 310 315
 <210> 70
 <211> 313
 <212> PRT
 <213> Homo sapiens
 <400> 70
 Met Asn Trp Glu Asn Glu Ser Ser Pro Lys Glu Phe Ile Leu Leu Gly
 1 5 10 15
 Phe Ser Asp Arg Ala Trp Leu Gln Met Pro Leu Phe Val Val Leu Leu
 20 25 30
 Ile Ser Tyr Thr Ile Thr Ile Phe Gly Asn Val Ser Ile Met Met Val
 35 40 45
 Cys Ile Leu Asp Pro Lys Leu His Thr Pro Met Tyr Phe Phe Leu Thr
 50 55 60
 Asn Leu Ser Ile Leu Asp Leu Cys Tyr Thr Thr Thr Val Pro His
 65 70 75 80
 Met Leu Val Asn Ile Gly Cys Asn Lys Lys Thr Ile Ser Tyr Ala Gly
 85 90 95
 Cys Val Ala His Leu Ile Ile Phe Leu Ala Leu Gly Ala Thr Glu Cys
 100 105 110
 Leu Leu Leu Ala Val Met Ser Phe Asp Arg Tyr Val Ala Val Cys Arg
 115 120 125
 Pro Leu His Tyr Val Val Ile Met Asn Tyr Trp Phe Cys Leu Arg Met
 130 135 140
 Ala Ala Phe Ser Trp Leu Ile Gly Phe Gly Asn Ser Val Leu Gln Ser
 145 150 155 160
 Ser Leu Thr Leu Asn Met Pro Arg Cys Gly His Gln Glu Val Asp His
 165 170 175
 Phe Phe Cys Glu Val Pro Ala Leu Leu Lys Leu Ser Cys Ala Asp Thr
 180 185 190
 Lys Pro Ile Glu Ala Glu Leu Phe Phe Ser Val Leu Ile Leu Leu
 195 200 205
 Ile Pro Val Thr Leu Ile Leu Ile Ser Tyr Gly Phe Ile Ala Gln Ala
 210 215 220

Val Leu Lys Ile Arg Ser Ala Glu Gly Arg Gln Lys Ala Phe Gly Thr
 225 230 235 240
 Cys Gly Ser His Met Ile Val Val Ser Leu Phe Tyr Gly Thr Ala Ile
 245 250 255
 Tyr Met Tyr Leu Gln Pro Pro Ser Ser Thr Ser Lys Asp Trp Gly Lys
 260 265 270 275
 Met Val Ser Leu Phe Tyr Gly Ile Ile Thr Ser Met Leu Asn Ser Leu
 280 285
 Ile Tyr Ser Leu Arg Asn Lys Asp Met Lys Glu Ala Phe Lys Arg Leu
 290 295 300
 Met Pro Arg Ile Phe Phe Cys Lys Lys
 305 310

<210> 71
 <211> 315
 <212> PRT
 <213> Mus musculus

<400> 71
 Met Glu Val Cys Asn Ser Thr Leu Arg Ser Gly Phe Ile Leu Met Gly
 1 5 10 15
 Ile Leu Asp Asp Asn Asp Phe Pro Glu Leu Leu Cys Ala Thr Ile Thr
 20 25 30
 Ala Leu Tyr Leu Leu Ala Leu Thr Ser Asn Gly Leu Leu Leu Val
 35 40 45
 Ile Thr Met Asp Thr Arg Leu His Val Pro Met Tyr Leu Leu Leu Trp
 50 55 60
 Gln Leu Ser Leu Met Asp Leu Leu Leu Thr Ser Val Ile Thr Pro Lys
 65 70 75 80
 Ala Ile Leu Asp Tyr Leu Leu Lys Asp Asn Thr Ile Ser Phe Gly Gly
 85 90 95
 Cys Ala Leu Gln Met Phe Leu Ala Leu Thr Leu Gly Thr Ala Glu Asp
 100 105 110
 Leu Leu Leu Ser Phe Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys His
 115 120 125
 Pro Leu Asn Tyr Thr Ile Leu Met Ser Gln Lys Val Cys Cys Leu Met
 130 135 140
 Ile Ala Thr Ser Trp Ser Leu Ala Ser Leu Ser Ala Leu Gly Tyr Ser
 145 150 155 160
 Met Tyr Thr Met Gln Tyr Pro Phe Cys Lys Ser Arg Gln Ile Arg His

165	170	175
Leu Phe Cys Glu Ile Pro Pro Leu Leu Lys Leu Ala Cys Ala Asp Thr		
180	185	190
Ser Thr Tyr Glu Leu Met Val Tyr Leu Met Gly Val Thr Leu Leu Phe		
195	200	205
Pro Ala Leu Ala Ala Ile Leu Ala Ser Tyr Ser Leu Ile Leu Phe Thr		
210	215	220
Val Leu His Met Pro Ser Asn Glu Gly Arg Arg Lys Ala Leu Val Thr		
225	230	235
Cys Ser Ser His Leu Thr Val Val Gly Met Trp Tyr Gly Gly Ala Ile		
245	250	255
Val Met Tyr Val Leu Pro Ser Ser Phe His Ser Pro Lys Gln Asp Asn		
260	265	270
Ile Ser Ser Val Phe Tyr Thr Ile Phe Thr Pro Ala Leu Asn Pro Leu		
275	280	285
Ile Tyr Ser Leu Arg Asn Lys Glu Val Thr Gly Ala Leu Arg Arg Val		
290	295	300
Leu Gly Lys Arg Leu Ser Val Gln Ser Thr Phe		
305	310	315
<210> 72		
<211> 317		
<212> PRT		
<213> Canis familiaris		
<400> 72		
Met Gly Thr Gly Asn Gln Thr Trp Val Arg Glu Phe Val Leu Leu Gly		
1	5	10
15		
Leu Ser Ser Asp Trp Asp Thr Glu Val Ser Leu Phe Val Leu Phe Leu		
20	25	30
Ile Thr Tyr Met Val Thr Val Leu Gly Asn Phe Leu Ile Ile Leu Leu		
35	40	45
Ile Arg Leu Asp Ser Arg Leu His Thr Pro Met Tyr Phe Phe Leu Thr		
50	55	60
Asn Leu Ser Leu Val Asp Val Ser Tyr Ala Thr Ser Ile Ile Pro Gln		
65	70	75
80		
Met Leu Ala His Leu Leu Ala Ala His Lys Ala Ile Pro Phe Val Ser		
85	90	95
Cys Ala Ala Gln Leu Phe Phe Ser Leu Gly Leu Gly Gly Ile Glu Phe		
100	105	110

Val Leu Leu Ala Val Met Ala Tyr Asp Arg Tyr Val Ala Val Cys Asp
 115 120 125
 Pro Leu Arg Tyr Ser Val Ile Met His Gly Gly Leu Cys Thr Arg Leu
 130 135 140
 Ala Ile Thr Ser Trp Val Ser Gly Ser Met Asn Ser Leu Met Gln Thr
 145 150 155 160
 Val Ile Thr Phe Gln Leu Pro Met Cys Thr Asn Lys Tyr Ile Asp His
 165 170 175
 Ile Ser Cys Glu Leu Leu Ala Val Val Arg Leu Ala Cys Val Asp Thr
 180 185 190
 Ser Ser Asn Glu Ile Ala Ile Met Val Ser Ser Ile Val Leu Leu Met
 195 200 205
 Thr Pro Phe Cys Leu Val Leu Leu Ser Tyr Ile Gln Ile Ile Ser Thr
 210 215 220
 Ile Leu Lys Ile Gln Ser Thr Glu Gly Arg Lys Lys Ala Phe His Thr
 225 230 235 240
 Cys Ala Ser His Leu Thr Val Val Val Leu Cys Tyr Gly Met Ala Ile
 245 250 255
 Phe Thr Tyr Ile Gln Pro Arg Ser Ser Pro Ser Val Leu Gln Glu Lys
 260 265 270
 Leu Ile Ser Leu Phe Tyr Ser Val Leu Thr Pro Met Leu Asn Pro Met
 275 280 285
 Ile Tyr Ser Val Arg Asn Lys Glu Val Lys Gly Ala Trp Gln Lys Leu
 290 295 300
 Leu Gly Gln Leu Thr Gly Ile Thr Ser Lys Leu Ala Thr
 305 310 315

<210> 73
 <211> 932
 <212> DNA
 <213> Homo sapiens

<400> 73

tgacagaatt cattcttctt ggtctgactc agtctcaaga tgctcaactt ctggcttttg 60
 tgcttagtctt aattttctac cttatcatec tcctctggaaa ttccctcatac attttcacca 120
 taaagtccaga ccctgggctc acagcccccc tctatttctt tctggcaac ttggccttac 180
 tggatgcata ctaactccttc attgtgttcc ccaggtatgtt ggtggacttc ctctctgaga 240
 agaaggttaat ctccatataga agctgcata ctcagcttt tttcttgcat tttcttgag 300
 cgggagagat gtccctcctc gttgtgatgg ccttgcaccg ctacatcgcc atctgcccgc 360
 ctttacacta ttcaaccatc atgaaccata gagcctgcta tgcatatcg ttgggtctgt 420
 ggcttggggg ctttatccat tccattgtac aagtagccct tattcctgcac ttgcctttct 480
 gtggcccaaa ccagctcgat aacttcttct gtatgttcc acaggtcatc aagctggcct 540
 gcaccaatac ctttgggtg gagcttotga tggctccaa cagtggccctg ctcagectcc 600
 tgtgcttcct gggccttctg gcctcctatg cagtcatacct ctgtcgtata agggagcact 660

cctctgaagg aaagagcaag gctatttcca catgcaccac ccatattatc attatatttc 720
 tcatgttgg acctgctatt ttcatctaca cttggccctt ccaggcttc ccagctgaca 780
 aggtagttc tctttccat actgtcatct ttcccttgat gaaccctgtt atttatacg 840
 ttgcgaacca ggaggtgaaa gcttccatga ggaagttgtt aagtcaacat atgtttgct 900
 gaatagaaga aagagaaaag caagaacgga ga 932

<210> 74
 <211> 299
 <212> PRT
 <213> Homo sapiens

<400> 74
 Thr Glu Phe Ile Leu Leu Gly Leu Thr Gln Ser Gln Asp Ala Gln Leu
 1 5 10 15
 Leu Val Phe Val Leu Val Leu Ile Phe Tyr Leu Ile Ile Leu Pro Gly
 20 25 30
 Asn Phe Leu Ile Ile Phe Thr Ile Lys Ser Asp Pro Gly Leu Thr Ala
 35 40 45
 Pro Leu Tyr Phe Phe Leu Gly Asn Leu Ala Leu Leu Asp Ala Ser Tyr
 50 55 60
 Ser Phe Ile Val Val Pro Arg Met Leu Val Asp Phe Leu Ser Glu Lys
 65 70 75 80
 Lys Val Ile Ser Tyr Arg Ser Cys Ile Thr Gln Leu Phe Phe Leu His
 85 90 95
 Phe Leu Gly Ala Gly Glu Met Phe Leu Leu Val Val Met Ala Phe Asp
 100 105 110
 Arg Tyr Ile Ala Ile Cys Arg Pro Leu His Tyr Ser Thr Ile Met Asn
 115 120 125
 Pro Arg Ala Cys Tyr Ala Leu Ser Leu Val Leu Trp Leu Gly Gly Phe
 130 135 140
 Ile His Ser Ile Val Gln Val Ala Leu Ile Leu His Leu Pro Phe Cys
 145 150 155 160
 Gly Pro Asn Gln Leu Asp Asn Phe Phe Cys Asp Val Pro Gln Val Ile
 165 170 175
 Lys Leu Ala Cys Thr Asn Thr Phe Val Val Glu Leu Leu Met Val Ser
 180 185 190
 Asn Ser Gly Leu Leu Ser Leu Leu Cys Phe Leu Gly Leu Leu Ala Ser
 195 200 205
 Tyr Ala Val Ile Leu Cys Arg Ile Arg Glu His Ser Ser Glu Gly Lys
 210 215 220
 Ser Lys Ala Ile Ser Thr Cys Thr Thr His Ile Ile Ile Ile Phe Leu
 225 230 235 240

Met Phe Gly Pro Ala Ile Phe Ile Tyr Thr Cys Pro Phe Gln Ala Phe
 245 250 255
 Pro Ala Asp Lys Val Val Ser Leu Phe His Thr Val Ile Phe Pro Leu
 260 265 270
 Met Asn Pro Val Ile Tyr Thr Leu Arg Asn Gln Glu Val Lys Ala Ser
 275 280 285
 Met Arg Lys Leu Leu Ser Gln His Met Phe Cys
 290 295

<210> 75
 <211> 308
 <212> PRT
 <213> Mus musculus

<400> 75
 Met Gly Ala Leu Asn Gln Thr Arg Val Thr Glu Phe Ile Phe Leu Gly
 1 5 10 15
 Leu Thr Asp Asn Trp Val Leu Glu Ile Leu Phe Phe Val Pro Phe Thr
 20 25 30
 Val Thr Tyr Met Leu Thr Leu Leu Gly Asn Phe Leu Ile Val Val Thr
 35 40 45
 Ile Val Phe Thr Pro Arg Leu His Asn Pro Met Tyr Phe Phe Leu Ser
 50 55 60
 Asn Leu Ser Phe Ile Asp Ile Cys His Ser Ser Val Thr Val Pro Lys
 65 70 75 80
 Met Leu Glu Gly Leu Leu Glu Arg Lys Thr Ile Ser Phe Asp Asn
 85 90 95
 Cys Ile Ala Gln Leu Phe Phe Leu His Leu Phe Ala Cys Ser Glu Ile
 100 105 110
 Phe Leu Leu Thr Ile Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Ile
 115 120 125
 Pro Leu His Tyr Ser Asn Val Met Asn Met Lys Val Cys Val Gln Leu
 130 135 140
 Val Phe Ala Leu Trp Leu Gly Gly Thr Ile His Ser Leu Val Gln Thr
 145 150 155 160
 Phe Leu Thr Ile Arg Leu Pro Tyr Cys Gly Pro Asn Ile Ile Asp Ser
 165 170 175
 Tyr Phe Cys Asp Val Pro Pro Val Ile Lys Leu Ala Cys Thr Asp Thr
 180 185 190
 Tyr Leu Thr Gly Ile Leu Ile Val Ser Asn Ser Gly Thr Ile Ser Leu

195
 200
 205
 Val Cys Phe Leu Ala Leu Val Thr Ser Tyr Thr Val Ile Leu Phe Ser
 210 215 220
 Leu Arg Lys Lys Ser Ala Glu Gly Arg Arg Lys Ala Leu Ser Thr Cys
 225 230 235 240
 Ser Ala His Phe Met Val Val Thr Leu Phe Phe Gly Pro Cys Ile Phe
 245 250 255
 Leu Tyr Thr Arg Pro Asp Ser Ser Phe Ser Ile Asp Lys Val Val Ser
 260 265 270
 Val Phe Tyr Thr Val Val Thr Pro Leu Leu Asn Pro Leu Ile Tyr Thr
 275 280 285
 Leu Arg Asn Glu Glu Val Lys Thr Ala Met Lys His Leu Arg Gln Arg
 290 295 300
 Arg Ile Cys Ser
 305

<210> 76
 <211> 310
 <212> PRT
 <213> Homo sapiens

<400> 76
 Met Glu Pro Gln Asn Thr Thr Gln Val Ser Met Phe Val Leu Leu Gly
 1 5 10 15
 Phe Ser Gln Thr Gln Glu Leu Gln Lys Phe Leu Phe Leu Leu Phe Leu
 20 25 30
 Leu Val Tyr Val Thr Thr Ile Val Gly Asn Leu Leu Ile Met Val Thr
 35 40 45
 Val Thr Phe Asp Cys Arg Leu His Thr Pro Met Tyr Phe Leu Leu Arg
 50 55 60
 Asn Leu Ala Leu Ile Asp Leu Cys Tyr Ser Thr Val Thr Ser Pro Lys
 65 70 75 80
 Met Leu Val Asp Phe Leu His Glu Thr Lys Thr Ile Ser Tyr Gln Gly
 85 90 95
 Cys Met Ala Gln Ile Phe Phe His Leu Leu Gly Gly Thr Val
 100 105 110
 Phe Phe Leu Ser Val Met Ala Tyr Asp Arg Tyr Ile Ala Ile Ser Gln
 115 120 125
 Pro Leu Arg Tyr Val Thr Ile Met Asn Thr Gln Leu Cys Val Gly Leu
 130 135 140

Val Val Ala Ala Trp Val Gly Gly Phe Val His Ser Ile Val Gln Leu
 145 150 155 160
 Ala Leu Ile Leu Pro Leu Pro Phe Cys Asp Pro Asn Ile Ile Asp Asn
 165 170 175
 Phe Tyr Cys Asp Val Pro Gln Val Leu Arg Leu Ala Cys Thr Asp Thr
 180 185 190
 Ser Leu Leu Glu Phe Leu Met Ile Phe Asn Ser Gly Leu Leu Val Ile
 195 200 205
 Ile Trp Phe Leu Leu Leu Ile Ser Tyr Thr Val Ile Leu Val Met
 210 215 220
 Leu Arg Ser His Ser Gly Lys Ala Arg Arg Lys Ala Ala Ser Thr Cys
 225 230 235 240
 Thr Thr His Ile Ile Val Val Ser Met Ile Phe Ile Pro Cys Ile Tyr
 245 250 255
 Ile Tyr Thr Trp Pro Phe Thr Pro Phe Leu Met Asp Lys Ala Val Ser
 260 265 270
 Ile Ser Tyr Thr Val Met Thr Pro Met Leu Asn Pro Met Ile Tyr Thr
 275 280 285
 Leu Arg Asn Gln Asp Met Lys Ala Ala Met Arg Arg Leu Gly Lys Cys
 290 295 300
 Leu Val Ile Cys Arg Glu
 305 310

<210> 77
 <211> 307
 <212> PRT
 <213> Homo sapiens

<400> 77
 Met Glu Thr Gly Asn Leu Thr Trp Val Ser Asp Phe Val Phe Leu Gly
 1 5 10 15
 Leu Ser Gln Thr Arg Glu Leu Gln Arg Phe Leu Phe Leu Met Phe Leu
 20 25 30
 Phe Val Tyr Ile Thr Thr Val Met Gly Asn Ile Leu Ile Ile Ile Thr
 35 40 45
 Val Thr Ser Asp Ser Gln Leu His Thr Pro Met Tyr Phe Leu Leu Arg
 50 55 60
 Asn Leu Ala Val Leu Asp Leu Cys Phe Ser Ser Val Thr Ala Pro Lys
 65 70 75 80
 Met Leu Val Asp Leu Leu Ser Glu Lys Lys Thr Ile Ser Tyr Gln Gly
 85 90 95

Cys Met Gly Gln Ile Phe Phe His Phe Leu Gly Gly Ala Met Val
 100 105 110
 Phe Phe Leu Ser Val Met Ala Phe Asp Arg Leu Ile Ala Ile Ser Arg
 115 120 125
 Pro Leu Arg Tyr Val Thr Val Met Asn Thr Gln Leu Trp Val Gly Leu
 130 135 140
 Val Val Ala Thr Trp Val Gly Gly Phe Val His Ser Ile Val Gln Leu
 145 150 155 160
 Ala Leu Met Leu Pro Leu Pro Phe Cys Gly Pro Asn Ile Leu Asp Asn
 165 170 175
 Phe Tyr Cys Asp Val Pro Gln Val Leu Arg Leu Ala Cys Thr Asp Thr
 180 185 190
 Ser Leu Leu Glu Phe Leu Lys Ile Ser Asn Ser Gly Leu Leu Asp Val
 195 200 205
 Val Trp Phe Phe Leu Leu Met Ser Tyr Leu Phe Ile Leu Val Met
 210 215 220
 Leu Arg Ser His Pro Gly Glu Ala Arg Arg Lys Ala Ala Ser Thr Cys
 225 230 235 240
 Thr Thr His Ile Ile Val Val Ser Met Ile Phe Val Pro Ser Ile Tyr
 245 250 255
 Leu Tyr Ala Arg Pro Phe Thr Pro Phe Pro Met Asp Lys Leu Val Ser
 260 265 270
 Ile Gly His Thr Val Met Thr Pro Met Leu Asn Pro Met Ile Tyr Thr
 275 280 285
 Leu Arg Asn Gln Asp Met Gln Ala Ala Val Arg Arg Leu Gly Arg His
 290 295 300
 Arg Leu Val
 305

<210> 78
 <211> 310
 <212> PRT
 <213> Mus musculus

<400> 78
 Met Glu Lys Ala Val Leu Ile Asn Glu Thr Ser Val Met Ser Phe Arg
 1 5 10 15
 Leu Thr Gly Leu Ser Thr Asn Pro Leu Val Gln Met Ala Val Phe Phe
 20 25 30
 Ile Phe Leu Ile Phe Tyr Val Leu Thr Leu Val Gly Asn Ile Leu Ile

35 40 45

Val Ile Thr Ile Ile Tyr Asp Arg Arg Leu His Thr Pro Met Tyr Phe
 50 55 60

Phe Leu Ser Asn Leu Ser Phe Ile Asp Val Cys His Ser Thr Val Thr
 65 70 75 80

Val Pro Lys Met Leu Ser Asp Thr Phe Ser Glu Glu Lys Leu Ile Ser
 85 90 95

Phe Asp Ala Cys Val Val Gln Met Phe Phe Leu His Leu Phe Ala Cys
 100 105 110

Thr Glu Ile Phe Leu Leu Thr Val Met Ala Tyr Asp Arg Tyr Val Ala
 115 120 125

Ile Cys Lys Pro Leu Gln Tyr Met Thr Ile Met Asn Trp Lys Val Cys
 130 135 140

Met Met Leu Ala Ala Leu Trp Thr Gly Gly Thr Ile His Ser Ile
 145 150 155 160

Ser Leu Thr Ser Leu Thr Ile Lys Leu Pro Tyr Cys Gly Pro Asp Glu
 165 170 175

Ile Asp Asn Phe Phe Cys Asp Val Pro Gln Val Ile Lys Leu Ala Cys
 180 185 190

Thr Asp Thr His Ile Ile Glu Ile Leu Ile Val Ser Asn Ser Gly Leu
 195 200 205

Ile Ser Val Val Cys Phe Val Val Leu Val Val Ser Tyr Ala Val Ile
 210 215 220

Leu Val Ser Leu Arg Gln Gln Ile Ser Asp Gly Lys Arg Lys Ala Leu
 225 230 235 240

Ser Thr Cys Ala Ala His Leu Thr Val Val Thr Leu Phe Leu Gly His
 245 250 255

Cys Ile Phe Ile Tyr Ser Arg Pro Ser Thr Ser Leu Pro Glu Asp Lys
 260 265 270

Val Val Ser Val Phe Phe Thr Ala Val Thr Pro Leu Leu Asn Pro Ile
 275 280 285

Ile Tyr Thr Leu Arg Asn Glu Asp Met Lys Ser Ala Leu Asn Lys Leu
 290 295 300

Ile Lys Arg Arg Glu Lys
 305 310

<210> 79
<211> 313
<212> PRT

<213> *Mus musculus*

<400> 79

Met Glu Lys Ala Val Leu Ile Asn Gln Thr Ser Val Met Ser Phe Arg
1 5 10 15
Leu Thr Gly Leu Ser Thr Asn Pro Lys Val Gln Met Ala Ile Phe Phe
20 25 30
Ile Phe Leu Ile Phe Tyr Val Leu Thr Leu Val Gly Asn Ile Leu Ile
35 40 45
Val Val Thr Ile Ile His Asp His Arg Leu His Thr Pro Met Tyr Phe
50 55 60
Phe Leu Ser Asn Leu Ser Phe Ile Asp Val Cys His Ser Thr Val Thr
65 70 75 80
Val Pro Lys Met Leu Ser Asp Thr Phe Ser Glu Glu Lys Leu Ile Ser
85 90 95
Phe Asp Asp Cys Val Val Gln Ile Phe Phe Leu His Leu Phe Ala Cys
100 105 110
Thr Glu Ile Phe Leu Leu Thr Val Met Ala Tyr Asp Arg Tyr Val Ala
115 120 125
Ile Cys Lys Pro Leu Arg Tyr Met Thr Ile Met Asn Trp Lys Val Cys
130 135 140
Met Val Leu Gly Gly Ala Met Trp Thr Ala Gly Thr Ile His Ser Ile
145 150 155 160
Ser Phe Thr Ser Leu Thr Ile Lys Leu Pro Tyr Cys Gly Pro Asn Glu
165 170 175
Leu Asp Ser Phe Phe Cys Asp Val Pro Gln Val Ile Glu Leu Ala Cys
180 185 190
Thr Asp Thr Arg Ile Thr Glu Ile Leu Val Val Ser Asn Ser Gly Met
195 200 205
Ile Ser Met Val Cys Phe Val Ile Ile Val Val Ser Tyr Ala Val Ile
210 215 220
Leu Val Ser Leu Arg Gln Gln Ile Ser Asp Gly Lys Arg Lys Ala Leu
225 230 235 240
Ser Thr Cys Ala Ala His Leu Thr Val Val Thr Leu Phe Leu Gly His
245 250 255
Cys Ile Phe Ile Tyr Ser Arg Pro Ala Ile Ser Leu Pro Glu Asp Lys
260 265 270
Ile Val Ser Ala Phe Phe Thr Ala Ile Thr Pro Leu Leu Asn Pro Ile
275 280 285

Ile Tyr Thr Phe Arg Asn Glu Asp Met Lys Ser Ala Leu Lys Lys Leu
 290 295 300
 Ile Arg Arg Lys Glu Gly Lys Glu Lys
 305 310

<210> 80
 <211> 984
 <212> DNA
 <213> Homo sapiens

<400> 80
 cctccaaaga gccactttct tcctgacggg cttccaagggt ctagaaggc tccatggctg 60
 gatctctatt cccttctgtct tcatactaccc gacagttatc ttggggaaacc tcaccatct 120
 ccacgtcatt tggactgtatg ccactctcca tggaccatg tactatttct tgggcattgt 180
 agctgtcaca gacttaggcc ttgccttcc cacactgccc actgtgttgg gcattttctg 240
 gtttgatacc agagagattt gcatccctgc ctgttcaact cagctttct tcataccac 300
 cttgtcttca atggagtcat cagtttctgtt atccatgtcc attgaccgt acgtggccgt 360
 ctgcaaccacca ctgcattgact ccaccgttcc gacacctgca tggattgtca agatggggct 420
 aagctcattgt cttagaaagtgt ctctccatcat cctcccttgc ccattccatcc tgaagcgctt 480
 ccaatactgc cactccatg tgcggctca tgcttattgt ctgcacccatgg agatcatgaa 540
 gctggcctgc tctagcatca ttgtcaatca catctatggg ctctttgttgc tggcctgcac 600
 cgtgggtgtt gactccctgc tcatacttct tcataccggc ctcatccatcc gcaccgtgt 660
 cagcattgccc tcccaccagg agcgcactccg agccctcaac acctgtgttgc ctcatatctg 720
 tgctgtactg ctcttctaca tcccccattgtat gtcctatgttgc tttgtgcac gctttgggtga 780
 acatctgccc cgcgttgc accttccatcat gtcctatgttgc tttgtgcac gctttgggtga 840
 tatgaacccc atcatctaca gcatcaagac caagcaattt cgcacgcac tcattaaagaa 900
 gtttcagttt ataaaagtcac tttaggtttt ttggaaaggat taagtttagag taaaagagagg 960
 984

<210> 81
 <211> 313
 <212> PRT
 <213> Homo sapiens

<400> 81
 Leu Gln Arg Ala Thr Phe Phe Leu Thr Gly Phe Gln Gly Leu Glu Gly
 1 5 10 15
 Leu His Gly Trp Ile Ser Ile Pro Phe Cys Phe Ile Tyr Leu Thr Val
 20 25 30
 Ile Leu Gly Asn Leu Thr Ile Leu His Val Ile Cys Thr Asp Ala Thr
 35 40 45
 Leu His Gly Pro Met Tyr Tyr Phe Leu Gly Met Leu Ala Val Thr Asp
 50 55 60
 Leu Gly Leu Cys Leu Ser Thr Leu Pro Thr Val Leu Gly Ile Phe Trp
 65 70 75 80
 Phe Asp Thr Arg Glu Ile Gly Ile Pro Ala Cys Phe Thr Gln Leu Phe
 85 90 95
 Phe Ile His Thr Leu Ser Ser Met Glu Ser Ser Val Leu Leu Ser Met

100	105	110
Ser Ile Asp Arg Tyr Val Ala Val Cys Asn Pro Leu His Asp Ser Thr		
115	120	125
Val Leu Thr Pro Ala Cys Ile Val Lys Met Gly Leu Ser Ser Val Leu		
130	135	140
Arg Ser Ala Leu Leu Ile Leu Pro Leu Pro Phe Leu Leu Lys Arg Phe		
145	150	155
Gln Tyr Cys His Ser His Val Leu Ala His Ala Tyr Cys Leu His Leu		
165	170	175
Glu Ile Met Lys Leu Ala Cys Ser Ser Ile Ile Val Asn His Ile Tyr		
180	185	190
Gly Leu Phe Val Val Ala Cys Thr Val Gly Val Asp Ser Leu Leu Ile		
195	200	205
Phe Leu Ser Tyr Ala Leu Ile Leu Arg Thr Val Leu Ser Ile Ala Ser		
210	215	220
His Gln Glu Arg Leu Arg Ala Leu Asn Thr Cys Val Ser His Ile Cys		
225	230	235
Ala Val Leu Leu Phe Tyr Ile Pro Met Ile Gly Leu Ser Leu Val His		
245	250	255
Arg Phe Gly Glu His Leu Pro Arg Val Val His Leu Phe Met Ser Tyr		
260	265	270
Val Tyr Leu Leu Val Pro Pro Leu Met Asn Pro Ile Ile Tyr Ser Ile		
275	280	285
Lys Thr Lys Gln Ile Arg Gln Arg Ile Ile Lys Lys Phe Gln Phe Ile		
290	295	300
Lys Ser Leu Arg Cys Phe Trp Lys Asp		
305	310	

<210> 82

<211> 1008

<212> DNA

<213> Homo sapiens

<400> 82

ctatgacaat tcttcttaat gcagccatca aagagccact ttcttcctga cgggcttcca 60
 aggtctagaa ggtctccatg gctggatctc tattcccttc tgcttcatct acctgacagt 120
 tatcttgggg aacctcacca ttctccacgt cattgtact gatgccactc tccatggacc 180
 catgtactat ttcttgggca tgctagctgt cacagactta ggccttgc tttccacact 240
 gcccactgtg ctgggcattt tctggtttga taccagagag attggcatcc ctgcctgttt 300
 cactcagctc ttcttcatcc acaccttgc ttcaatggag tcatcagttc tggttatccat 360
 gtccattgac cgctccgtgg ccgtctgcaa cccactgcat gactccaccc tcctgacacc 420
 tgcattgtt gtcagatgg ggctaagctc agtgctttaga agtgctctcc tcatactccc 480
 cttgccattc ctccctgaagc gcttccaata ctgcactcc catgtgctgg ctcatgctta 540

ttgtcttcac ctggagatca tgaagctggc ctgctctagc atcattgtca atcacatcta 600
 tgggctttt gttgtggct gcaccgtggg tggactcc ctgctcatct ttcttcata 660
 cgccttcata cttcgccacg tgctcagat tgcctccac caggagcgac tccgagccct 720
 caacacctgt gtcttcata tctgtgtgt actgctttc tacatcccc tgattggctt 780
 gtctcttggc catcgcttg gtgaacatct gccccgcgtt gtacacctct tcatgtccct 840
 tggtatctg ctggtaccac cccttatgaa ccccatcata tacagcatca agaccaagca 900
 aattcgccag cgcatcatta agaagttca gtttataaag tcacttagt gttttggaa 960
 ggattaagtt agagtaaaga gaggaagtt tggacataaa gcccacag
1008

<210> 83
 <211> 315
 <212> PRT
 <213> Homo sapiens

<400> 83
 Cys Ser Leu Gln Arg Ala Thr Phe Phe Leu Thr Gly Phe Gln Gly Leu
 1 5 10 15
 Glu Gly Leu His Gly Trp Ile Ser Ile Pro Phe Cys Phe Ile Tyr Leu
 20 25 30
 Thr Val Ile Leu Gly Asn Leu Thr Ile Leu His Val Ile Cys Thr Asp
 35 40 45
 Ala Thr Leu His Gly Pro Met Tyr Tyr Phe Leu Gly Met Leu Ala Val
 50 55 60
 Thr Asp Leu Gly Leu Cys Leu Ser Thr Leu Pro Thr Val Leu Gly Ile
 65 70 75 80
 Phe Trp Phe Asp Thr Arg Glu Ile Gly Ile Pro Ala Cys Phe Thr Gln
 85 90 95
 Leu Phe Phe Ile His Thr Leu Ser Ser Met Glu Ser Ser Val Leu Leu
 100 105 110
 Ser Met Ser Ile Asp Arg Ser Val Ala Val Cys Asn Pro Leu His Asp
 115 120 125
 Ser Thr Val Leu Thr Pro Ala Cys Ile Val Lys Met GLY Leu Ser Ser
 130 135 140
 Val Leu Arg Ser Ala Leu Leu Ile Leu Pro Leu Pro Phe Leu Leu Lys
 145 150 155 160
 Arg Phe Gln Tyr Cys His Ser His Val Leu Ala His Ala Tyr Cys Leu
 165 170 175
 His Leu Glu Ile Met Lys Leu Ala Cys Ser Ser Ile Ile Val Asn His
 180 185 190
 Ile Tyr Gly Leu Phe Val Val Ala Cys Thr Val Gly Val Asp Ser Leu
 195 200 205
 Leu Ile Phe Leu Ser Tyr Ala Leu Ile Leu Arg Thr Val Leu Ser Ile
 210 215 220

Ala Ser His Gln Gln Glu Arg Leu Arg Ala Leu Asn Thr Cys Val Ser His
 225 230 235 240
 Ile Cys Ala Val Leu Leu Phe Tyr Ile Pro Met Ile Gly Leu Ser Leu
 245 250 255
 Val His Arg Phe Gly Glu His Leu Pro Arg Val Val His Leu Phe Met
 260 265 270
 Ser Tyr Val Tyr Leu Leu Val Pro Pro Leu Met Asn Pro Ile Ile Tyr
 275 280 285
 Ser Ile Lys Thr Lys Gln Ile Arg Gln Arg Ile Ile Lys Lys Phe Gln
 290 295 300
 Phe Ile Lys Ser Leu Arg Cys Phe Trp Lys Asp
 305 310 315
 <210> 84
 <211> 312
 <212> PRT
 <213> Homo sapiens
 <400> 84
 Met Ser Ser Ser Ser Ser His Pro Phe Leu Leu Thr Gly Phe Pro
 1 5 10 15
 Gly Leu Glu Glu Ala His His Trp Ile Ser Val Phe Phe Leu Phe Met
 20 25 30
 Tyr Ile Ser Ile Leu Phe Gly Asn Gly Thr Leu Leu Leu Leu Ile Lys
 35 40 45
 Glu Asp His Asn Leu His Glu Pro Met Tyr Phe Phe Leu Ala Met Leu
 50 55 60
 Ala Ala Thr Asp Leu Gly Leu Ala Leu Thr Thr Met Pro Thr Val Leu
 65 70 75 80
 Gly Val Leu Trp Leu Asp His Arg Glu Ile Gly Ser Ala Ala Cys Phe
 85 90 95
 Ser Gln Ala Tyr Phe Ile His Ser Leu Ser Phe Leu Glu Ser Gly Ile
 100 105 110
 Leu Leu Ala Met Ala Tyr Asp Arg Phe Ile Ala Ile Cys Asn Pro Leu
 115 120 125
 Arg Tyr Thr Ser Val Leu Thr Asn Thr Arg Val Val Lys Ile Gly Leu
 130 135 140
 Gly Val Leu Met Arg Gly Phe Val Ser Val Val Pro Pro Ile Arg Pro
 145 150 155 160
 Leu Tyr Phe Phe Leu Tyr Cys His Ser His Val Leu Ser His Ala Phe

165	170	175
Cys Leu His Gln Asp Val Ile Lys Leu Ala Cys Ala Asp Thr Thr Phe		
180	185	190
Asn Arg Leu Tyr Pro Ala Val Leu Val Val Phe Ile Phe Val Leu Asp		
195	200	205
Tyr Leu Ile Ile Phe Ile Ser Tyr Val Leu Ile Leu Lys Thr Val Leu		
210	215	220
Ser Ile Ala Ser Arg Glu Glu Arg Ala Lys Ala Leu Ile Thr Cys Val		
225	230	235
Ser His Ile Cys Cys Val Leu Val Phe Tyr Val Thr Val Ile Gly Leu		
245	250	255
Ser Leu Ile His Arg Phe Gly Lys Gln Val Pro His Ile Val His Leu		
260	265	270
Ile Met Ser Tyr Ala Tyr Phe Leu Phe Pro Pro Leu Met Asn Pro Ile		
275	280	285
Thr Tyr Ser Val Lys Thr Lys Gln Ile Gln Asn Ala Ile Leu His Leu		
290	295	300
Phe Thr Thr His Arg Ile Gly Thr		
305	310	

<210> 85

<211> 319

<212> PRT

<213> Mus musculus

<400> 85

Met Ala Thr Ser Asn Ser Ser Thr Ile Val Ser Ser Thr Phe Tyr Leu			
1	5	10	15

Thr Gly Ile Pro Gly Tyr Glu Glu Phe His His Trp Ile Ser Ile Pro		
20	25	30

Phe Cys Phe Leu Tyr Leu Val Gly Ile Thr Gly Asn Cys Met Ile Leu		
35	40	45

His Ile Val Arg Thr Asp Pro Arg Leu His Glu Pro Met Tyr Tyr Phe		
50	55	60

Leu Ala Met Leu Ser Leu Thr Asp Met Ala Met Ser Leu Pro Thr Met			
65	70	75	80

Met Ser Leu Phe Arg Val Leu Trp Ser Ile Ser Arg Glu Ile Gln Phe		
85	90	95

Asn Ile Cys Val Val Gln Met Phe Leu Ile His Thr Phe Ser Phe Thr		
100	105	110

Glu Ser Ser Val Leu Leu Ala Met Ala Leu Asp Arg Tyr Val Ala Ile
 115 120 125
 Cys His Pro Leu Arg Tyr Ala Thr Ile Leu Thr Pro Lys Leu Ile Ala
 130 135 140
 Lys Ile Gly Thr Ala Ala Leu Leu Arg Ser Ser Ile Leu Ile Ile Pro
 145 150 155 160
 Leu Ile Ala Arg Leu Ala Phe Phe Pro Phe Cys Gly Ser His Val Leu
 165 170 175
 Ser His Ser Tyr Cys Leu His Gln Asp Met Ile Arg Leu Ala Cys Ala
 180 185 190
 Asp Ile Arg Phe Asn Val Ile Tyr Gly Leu Val Leu Ile Thr Leu Leu
 195 200 205
 Trp Gly Met Asp Ser Leu Gly Ile Phe Val Ser Tyr Val Leu Ile Leu
 210 215 220
 His Ser Val Leu Lys Ile Ala Ser Arg Glu Gly Arg Leu Lys Ala Leu
 225 230 235 240
 Asn Thr Cys Ala Ser His Ile Cys Ala Val Leu Ile Leu Tyr Val Pro
 245 250 255
 Met Ile Gly Leu Ser Ile Val His Arg Phe Ala Lys His Ser Ser Pro
 260 265 270
 Leu Ile His Ile Phe Met Ala His Ile Tyr Leu Leu Val Pro Pro Val
 275 280 285
 Leu Asn Pro Ile Ile Tyr Ser Val Lys Thr Lys Gln Ile Arg Glu Gly
 290 295 300
 Ile Leu His Leu Leu Cys Ser Pro Lys Ile Ser Ser Ile Thr Met
 305 310 315

<210> 86
 <211> 315
 <212> PRT
 <213> Mus musculus

<400> 86
 Met Pro Ser Met Trp Leu Asn Ile Ser Ser Ser Pro Phe Leu Leu Thr
 1 5 10 15
 Gly Phe Pro Gly Leu Glu Lys Ala His His Leu Ile Ser Leu Pro Leu
 20 25 30
 Leu Met Ala Tyr Ile Ser Ile Leu Leu Gly Asn Gly Thr Leu Leu Phe
 35 40 45
 Leu Ile Lys Asp Asp His Asn Leu His Glu Pro Met Tyr Tyr Phe Leu
 50 55 60

Gly Met Leu Ala Ala Thr Asp Leu Gly Val Thr Leu Thr Thr Met Pro
 65 70 75 80
 Thr Val Leu Ser Val Leu Trp Leu Asn His Arg Glu Ile Gly His Gly
 85 90 95
 Ala Cys Phe Ser Gln Ala Tyr Phe Ile His Thr Leu Ser Ile Val Glu
 100 105 110
 Ser Gly Val Leu Leu Ala Met Ala Tyr Asp Arg Phe Ile Ala Ile Arg
 115 120 125
 Asn Pro Leu Arg Tyr Thr Thr Ile Leu Thr Asp Thr Lys Val Ile Lys
 130 135 140
 Ile Gly Ile Gly Leu Val Met Arg Ala Gly Leu Ser Ile Met Pro Ile
 145 150 155 160
 Ile Ile Arg Leu His Trp Phe Pro Tyr Cys Arg Ser His Val Leu Ser
 165 170 175
 His Ala Phe Cys Leu His Gln Asp Val Ile Lys Leu Ala Cys Ala Asp
 180 185 190
 Ile Thr Phe Asn Arg Leu Tyr Pro Val Val Val Val Phe Ala Met Val
 195 200 205
 Leu Leu Asp Phe Leu Ile Ile Phe Phe Ser Tyr Val Leu Ile Leu Lys
 210 215 220
 Thr Val Met Gly Ile Ala Ser Thr Asp Glu Arg Ala Lys Ala Leu Asn
 225 230 235 240
 Thr Cys Val Ser His Ile Cys Cys Ile Leu Val Phe Tyr Val Thr Val
 245 250 255
 Val Gly Leu Thr Phe Ile His Arg Phe Gly Lys Asn Val Pro His Val
 260 265 270
 Val His Ile Thr Met Ser Tyr Ile Tyr Phe Leu Phe Pro Pro Phe Met
 275 280 285
 Asn Pro Val Ile Tyr Ser Ile Lys Thr Lys Gln Ile Gln Ser Gly Leu
 290 295 300
 Leu Arg Leu Phe Ser Leu Pro Cys Ser Lys Thr
 305 310 315

 <210> 87
 <211> 311
 <212> PRT
 <213> Mus musculus

 <400> 87
 Met Trp Pro Asn Ser Ser Asp Ala Pro Phe Leu Leu Thr Gly Phe Leu

1	5	10	15
Gly Leu Glu Met Ile His His Trp Ile Ser Ile Pro Phe Phe Val Ile			
20	25	30	
Tyr Phe Ser Ile Ile Val Gly Asn Gly Thr Leu Leu Phe Ile Ile Trp			
35	40	45	
Ser Asp His Ser Leu His Glu Pro Met Tyr Tyr Phe Leu Ala Val Leu			
50	55	60	
Ala Ser Met Asp Leu Gly Met Thr Leu Thr Thr Met Pro Thr Val Leu			
65	70	75	80
Gly Val Leu Val Leu Asn Gln Arg Glu Ile Val His Gly Ala Cys Phe			
85	90	95	
Ile Gln Ser Tyr Phe Ile His Ser Leu Ala Ile Val Glu Ser Gly Val			
100	105	110	
Leu Leu Ala Met Ser Tyr Asp Arg Phe Val Ala Ile Cys Thr Pro Leu			
115	120	125	
His Tyr Asn Ser Ile Leu Thr Asn Ser Arg Val Met Lys Met Ala Leu			
130	135	140	
Gly Ala Leu Leu Arg Gly Phe Val Ser Ile Val Pro Pro Ile Met Pro			
145	150	155	160
Leu Phe Trp Phe Pro Tyr Cys His Ser His Val Leu Ser His Ala Phe			
165	170	175	
Cys Leu His Gln Asp Val Met Lys Leu Ala Cys Ala Asp Ile Thr Phe			
180	185	190	
Asn Leu Ile Tyr Pro Val Val Leu Val Ala Leu Thr Phe Phe Leu Asp			
195	200	205	
Ala Leu Ile Ile Ile Phe Ser Tyr Val Leu Ile Leu Lys Lys Val Met			
210	215	220	
Gly Ile Ala Ser Gly Glu Glu Arg Lys Lys Ser Leu Asn Thr Cys Val			
225	230	235	240
Ser His Ile Ser Cys Val Leu Val Phe Tyr Ile Thr Val Ile Gly Leu			
245	250	255	
Thr Phe Ile His Arg Phe Gly Lys Asn Ala Pro His Val Val His Ile			
260	265	270	
Thr Met Ser Tyr Val Tyr Phe Leu Phe Pro Pro Phe Met Asn Pro Ile			
275	280	285	
Ile Tyr Ser Ile Lys Thr Lys Gln Ile Gln Arg Ser Ile Leu Arg Leu			
290	295	300	
Leu Ser Lys His Ser Arg Thr			

305

310

<210> 88

<211> 307

<212> PRT

<213> Mus musculus

<400> 88

Met	Trp	Ser	Asn	Ile	Ser	Ala	Ala	Pro	Phe	Leu	Leu	Thr	Gly	Phe	Pro
1				5						10				15	

Gly	Leu	Glu	Ala	Ala	His	His	Trp	Ile	Ser	Ile	Pro	Phe	Phe	Ala	Ile
				20				25						30	

Tyr	Ile	Ser	Val	Leu	Leu	Gly	Asn	Gly	Thr	Leu	Leu	Tyr	Leu	Ile	Lys
				35				40				45			

Asp	Asp	His	Asn	Leu	His	Glu	Pro	Met	Tyr	Tyr	Phe	Leu	Ala	Met	Leu
				50		55					60				

Ala	Gly	Thr	Asp	Leu	Thr	Val	Thr	Leu	Thr	Thr	Met	Pro	Thr	Val	Met
				65		70		75				80			

Ala	Val	Leu	Trp	Val	Asn	His	Arg	Glu	Ile	Arg	His	Gly	Ala	Cys	Phe
				85				90				95			

Leu	Gln	Ala	Tyr	Ile	Ile	His	Ser	Leu	Ser	Ile	Val	Glu	Ser	Gly	Val
				100				105				110			

Leu	Leu	Ala	Met	Ser	Tyr	Asp	Arg	Phe	Val	Ala	Ile	Cys	Thr	Pro	Leu
				115				120			125				

His	Tyr	Asn	Ser	Ile	Leu	Thr	Asn	Ser	Arg	Val	Ile	Ala	Ile	Gly	Leu
				130		135				140					

Gly	Val	Val	Leu	Arg	Gly	Phe	Leu	Ser	Leu	Val	Pro	Pro	Ile	Leu	Pro
				145		150			155			160			

Leu	Phe	Trp	Phe	Ser	Tyr	Cys	Arg	Ser	His	Val	Leu	Ser	His	Ala	Phe
				165				170			175				

Cys	Leu	His	Gln	Asp	Val	Met	Lys	Leu	Ala	Cys	Ala	Asp	Ile	Thr	Phe
				180				185			190				

Asn	Arg	Ile	Tyr	Pro	Val	Val	Leu	Val	Ala	Leu	Thr	Phe	Phe	Leu	Asp
				195			200				205				

Ala	Leu	Ile	Ile	Val	Phe	Ser	Tyr	Val	Leu	Ile	Leu	Lys	Thr	Val	Met
				210			215			220					

Gly	Ile	Ala	Ser	Gly	Glu	Glu	Arg	Ala	Lys	Ala	Leu	Asn	Thr	Cys	Val
				225		230			235			240			

Ser	His	Ile	Ser	Cys	Val	Leu	Val	Phe	Tyr	Ile	Thr	Val	Ile	Gly	Leu
				245			250			255			255		

Thr Phe Ile His Arg Phe Gly Lys Asn Ala Pro His Val Val His Ile
260 265 270

Thr Met Ser Tyr Val Tyr Phe Leu Phe Pro Pro Phe Met Asn Pro Ile
275 280 285

Ile Tyr Ser Ile Lys Thr Lys Gln Ile Gln Arg Ser Val Leu His Leu
290 295 300

Leu Ser Val
305

<210> 89

<211> 922

<212> DNA

<213> Homo sapiens

<400> 89

cagtgaattt gttctcgta gcttctcagc cctgtccact gagcttcagg ctctactgtt 60
tctccctttc ttgaccattt acttggttac tttaatgggc aatgtcctca tcatacctgg 120
caactatagct gactctgcac tacaaagtcc tatgtacttc ttccctcagaa acttgcctt 180
cctggagata ggtttcaact tggcattgt gtccaaagatg ctggggaccc tgatcattca 240
agacacaacc atctccttcc ttggatgtgc cactcagatg tatttcttct tcttttttgg 300
ggctgctgag tgctgcctcc tggccaccat ggcataatgac cgctacgtgg ccatctgtga 360
cccctgtac tacccagtcac tcatgggcca catatcctgt gcccagctgg cagctgcctc 420
ttggattctca gggttttcag tggccactgt gcaaaccaca tggattttca gtttccctt 480
ttgtggccccc aacagggtga accacttctt ctgtgacagc cctcctgtta ttgcactgg 540
ctgtgctgac acctctgtgt ttgaactgga ggctctgaca gccactgtcc tattcattct 600
ctttcctttc ttgctgatcc tggatccta tgcctgcata ctctccacta tcttcaggat 660
gccgtcagct gaggggaaac atcaggcatt ctccacctgt tccgcccacc tcttggttgt 720
ctctctcttc tatagcactg ccacatccac gtatttccga ccccaatcca gtgcctcttc 780
tgagagcaag aagctgctgt cactctttc cacagtggtg actcccatgt tgaaccccat 840
catctacagc tcaaggaata aagaagtgaa ggctgcactg aagcggctta tccacaggaa 900
cctggctct cagaaactat ga 922

<210> 90

<211> 306

<212> PRT

<213> Homo sapiens

<400> 90

Ser Glu Phe Val Leu Val Ser Phe Ser Ala Leu Ser Thr Glu Leu Gln
1 5 10 15

Ala Leu Leu Phe Leu Leu Phe Leu Thr Ile Tyr Leu Val Thr Leu Met
20 25 30

Gly Asn Val Leu Ile Ile Leu Val Thr Ile Ala Asp Ser Ala Leu Gln
35 40 45

Ser Pro Met Tyr Phe Phe Leu Arg Asn Leu Ser Phe Leu Glu Ile Gly
50 55 60

Phe Asn Leu Val Ile Val Ser Lys Met Leu Gly Thr Leu Ile Ile Gln
65 70 75 80

Asp Thr Thr Ile Ser Phe Leu Gly Cys Ala Thr Gln Met Tyr Phe Phe
 85 90 95

 Phe Phe Phe Gly Ala Ala Glu Cys Cys Leu Leu Ala Thr Met Ala Tyr
 100 105 110

 Asp Arg Tyr Val Ala Ile Cys Asp Pro Leu Tyr Tyr Pro Val Ile Met
 115 120 125

 Gly His Ile Ser Cys Ala Gln Leu Ala Ala Ala Ser Trp Phe Ser Gly
 130 135 140

 Phe Ser Val Ala Thr Val Gln Thr Thr Trp Ile Phe Ser Phe Pro Phe
 145 150 155 160

 Cys Gly Pro Asn Arg Val Asn His Phe Phe Cys Asp Ser Pro Pro Val
 165 170 175

 Ile Ala Leu Val Cys Ala Asp Thr Ser Val Phe Glu Leu Glu Ala Leu
 180 185 190

 Thr Ala Thr Val Leu Phe Ile Leu Phe Pro Phe Leu Leu Ile Leu Gly
 195 200 205

 Ser Tyr Val Arg Ile Leu Ser Thr Ile Phe Arg Met Pro Ser Ala Glu
 210 215 220

 Gly Lys His Gln Ala Phe Ser Thr Cys Ser Ala His Leu Leu Val Val
 225 230 235 240

 Ser Leu Phe Tyr Ser Thr Ala Ile Leu Thr Tyr Phe Arg Pro Gln Ser
 245 250 255

 Ser Ala Ser Ser Glu Ser Lys Lys Leu Leu Ser Leu Ser Ser Thr Val
 260 265 270

 Val Thr Pro Met Leu Asn Pro Ile Ile Tyr Ser Ser Arg Asn Lys Glu
 275 280 285

 Val Lys Ala Ala Leu Lys Arg Leu Ile His Arg Asn Leu Gly Ser Gln
 290 295 300

Lys Leu
 305

<210> 91
 <211> 315
 <212> PRT
 <213> Homo sapiens

<400> 91
 Met Met Trp Glu Asn Trp Thr Ile Val Ser Glu Phe Val Leu Val Ser
 1 5 10 15

Phe Ser Ala Leu Ser Thr Glu Leu Gln Ala Leu Leu Phe Leu Leu Phe

20	25	30
Leu Thr Ile Tyr Leu Val Thr Leu Met Gly Asn Val Leu Ile Ile Leu		
35	40	45
Val Thr Ile Ala Asp Ser Ala Leu Gln Ser Pro Met Tyr Phe Phe Leu		
50	55	60
Arg Asn Leu Ser Phe Leu Glu Ile Gly Phe Asn Leu Val Ile Val Pro		
65	70	75
Lys Met Leu Gly Thr Leu Ile Ile Gln Asp Thr Thr Ile Ser Phe Leu		
85	90	95
Gly Cys Ala Thr Gln Met Tyr Phe Phe Phe Phe Gly Ala Ala Glu		
100	105	110
Cys Cys Leu Leu Ala Thr Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys		
115	120	125
Asp Pro Leu His Tyr Pro Val Ile Met Gly His Ile Ser Cys Ala Gln		
130	135	140
Leu Ala Ala Ala Ser Trp Phe Ser Gly Phe Ser Val Ala Thr Val Gln		
145	150	155
160		
Thr Thr Trp Ile Phe Ser Phe Pro Phe Cys Gly Pro Asn Arg Val Asn		
165	170	175
His Phe Phe Cys Asp Ser Pro Pro Val Ile Ala Leu Val Cys Ala Asp		
180	185	190
Thr Ser Val Phe Glu Leu Glu Ala Leu Thr Ala Thr Val Pro Phe Ile		
195	200	205
Leu Phe Pro Phe Leu Leu Ile Leu Gly Ser Tyr Val Arg Ile Leu Ser		
210	215	220
Thr Ile Phe Arg Met Pro Ser Ala Glu Gly Lys His Gln Ala Phe Ser		
225	230	235
240		
Thr Cys Ser Ala His Leu Leu Val Val Ser Leu Phe Tyr Ser Thr Ala		
245	250	255
Ile Leu Thr Tyr Phe Arg Pro Gln Ser Ser Ala Ser Ser Glu Ser Lys		
260	265	270
Lys Leu Leu Ser Leu Ser Ser Thr Val Val Thr Pro Met Leu Asn Pro		
275	280	285
Ile Ile Tyr Ser Ser Arg Asn Lys Glu Val Lys Ala Ala Leu Lys Arg		
290	295	300
Leu Ile His Arg Thr Leu Gly Ser Gln Lys Leu		
305	310	315

<210> 92
<211> 315
<212> PRT
<213> Mus musculus

<400> 92
Met Thr Trp Gly Asn Trp Thr Thr Val Arg Glu Phe Ile Leu Met Ser
1 5 10 15
Phe Ser Ser Leu Ser Tyr Glu Val Gln Ala Leu Leu Phe Leu Leu Phe
20 25 30
Leu Ile Ile Tyr Leu Val Thr Leu Met Gly Asn Val Leu Ile Ile Leu
35 40 45
Val Thr Thr Ala Asp Ser Ala Leu Gln Ser Pro Met Tyr Phe Phe Leu
50 55 60
Arg Asn Leu Ser Phe Leu Glu Ile Gly Phe Asn Leu Val Ile Val Pro
65 70 75 80
Lys Met Leu Ser Thr Leu Ile Leu Gln Asp Lys Thr Ile Ser Phe Leu
85 90 95
Gly Cys Ala Thr Gln Met Tyr Phe Phe Phe Phe Gly Ala Ala Glu
100 105 110
Cys Cys Leu Leu Ala Thr Met Ala Tyr Asp Arg Tyr Met Ala Ile Cys
115 120 125
Asp Pro Leu His Tyr Pro Ile Ile Met Ser Arg Arg Ser Cys Ala Gln
130 135 140
Leu Ala Ala Ala Ser Trp Phe Ser Gly Phe Pro Val Ala Thr Val Gln
145 150 155 160
Thr Thr Trp Ile Phe Ser Phe Pro Phe Cys Gly Pro Asn Met Val Asn
165 170 175
His Phe Phe Cys Asp Ser Pro Pro Val Ile Ala Leu Val Cys Ala Asp
180 185 190
Thr Ser Leu Phe Glu Leu Glu Ala Leu Thr Ala Thr Val Leu Phe Ile
195 200 205
Leu Phe Pro Phe Leu Leu Ile Leu Gly Ser Tyr Val Arg Ile Leu Ser
210 215 220
Thr Ile Phe Arg Met Pro Ser Ala Glu Gly Lys Arg Lys Ala Phe Ser
225 230 235 240
Thr Cys Ser Ser His Leu Leu Val Val Ser Leu Phe Tyr Ser Thr Ala
245 250 255
Ile Leu Thr Tyr Phe Arg Pro Arg Ser Asn Thr Ser Pro Glu Asn Lys
260 265 270

Lys Met Leu Ser Leu Ser Tyr Thr Val Ile Thr Pro Met Leu Asn Pro
 275 280 285
 Ile Ile Tyr Ser Leu Arg Asn Asn Glu Val Lys Ala Ala Leu Arg Arg
 290 295 300
 Ile Ile His Arg Thr Leu Gly Pro Gln Lys Leu
 305 310 315
 <210> 93
 <211> 317
 <212> PRT
 <213> Homo sapiens
 <400> 93
 Met Ala Ile Gly Asn Trp Thr Glu Ile Ser Glu Phe Ile Leu Met Ser
 1 5 10 15
 Phe Ser Ser Leu Pro Thr Glu Ile Gln Ser Leu Leu Phe Leu Thr Phe
 20 25 30
 Leu Thr Ile Tyr Leu Val Thr Leu Lys Gly Asn Ser Leu Ile Ile Leu
 35 40 45
 Val Thr Leu Ala Asp Pro Met Leu His Ser Pro Met Tyr Phe Phe Leu
 50 55 60
 Arg Asn Leu Ser Phe Leu Glu Ile Gly Phe Asn Leu Val Ile Val Pro
 65 70 75 80
 Lys Met Leu Gly Thr Leu Leu Ala Gln Asp Thr Thr Ile Ser Phe Leu
 85 90 95
 Gly Cys Ala Thr Gln Met Tyr Phe Phe Phe Phe Gly Val Ala Glu
 100 105 110
 Cys Phe Leu Leu Ala Thr Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys
 115 120 125
 Ser Pro Leu His Tyr Pro Val Ile Met Asn Gln Arg Thr Arg Ala Lys
 130 135 140
 Leu Ala Ala Ala Ser Trp Phe Pro Gly Phe Pro Val Ala Thr Val Gln
 145 150 155 160
 Thr Thr Trp Leu Phe Ser Phe Pro Phe Cys Gly Thr Asn Lys Val Asn
 165 170 175
 His Phe Phe Cys Asp Ser Pro Pro Val Leu Lys Leu Val Cys Ala Asp
 180 185 190
 Thr Ala Leu Phe Glu Ile Tyr Ala Ile Val Gly Thr Ile Leu Val Val
 195 200 205
 Met Ile Pro Cys Leu Leu Ile Leu Cys Ser Tyr Thr Arg Ile Ala Ala
 210 215 220

Ala Ile Leu Lys Ile Pro Ser Ala Lys Gly Lys His Lys Ala Phe Ser
225 230 235 240

Thr Cys Ser Ser His Leu Leu Val Val Ser Leu Phe Tyr Ile Ser Ser
245 250 255

Ser Leu Thr Tyr Phe Trp Pro Lys Ser Asn Asn Ser Pro Glu Ser Lys
260 265 270

Lys Leu Leu Ser Leu Ser Tyr Thr Val Val Thr Pro Met Leu Asn Pro
275 280 285

Ile Ile Tyr Ser Leu Arg Asn Ser Glu Val Lys Asn Ala Leu Ser Arg
290 295 300

Thr Phe His Lys Val Leu Ala Leu Arg Asn Cys Ile Pro
305 310 315

<210> 94

<211> 317

<212> PRT

<213> Mus musculus

<400> 94

Met Ala Thr Gly Asn Gln Thr Arg Ile Thr Glu Phe Ile Leu Met Ser
1 5 10 15

Phe Ser Ser Leu Pro Thr Glu Ile Gln Thr Leu Leu Phe Leu Ala Phe
20 25 30

Leu Thr Ile Tyr Leu Val Thr Leu Leu Gly Asn Ser Leu Ile Ile Leu
35 40 45

Val Thr Leu Ala Asp Pro Met Leu Gln Ser Pro Met Tyr Phe Phe Leu
50 55 60

Arg Asn Leu Ser Phe Leu Glu Ile Gly Phe Asn Leu Val Ile Val Pro
65 70 75 80

Lys Met Leu Gly Thr Leu Ile Ala Gln Asp Thr Ser Ile Ser Phe Leu
85 90 95

Gly Cys Ala Thr Gln Met Tyr Phe Phe Phe Phe Gly Val Ala Glu
100 105 110

Cys Phe Leu Leu Ala Thr Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys
115 120 125

Ser Pro Leu His Tyr Pro Val Ile Met Asn Gln Glu Thr Arg Val Lys
130 135 140

Leu Ala Ala Ala Ser Trp Phe Pro Gly Phe Pro Val Ala Thr Val Gln
145 150 155 160

Thr Thr Trp Leu Phe Ser Phe Pro Phe Cys Ala Thr Asn Lys Val Asn

165	170	175
His Phe Phe Cys Asp Ser Pro Pro Val Leu Arg Leu Val Cys Ala Asp		
180	185	190
Thr Ala Gln Phe Glu Val Tyr Ala Ile Val Gly Thr Ile Leu Val Val		
195	200	205
Met Ile Pro Cys Leu Leu Ile Leu Cys Ser Tyr Thr Leu Ile Ala Ala		
210	215	220
Ser Ile Leu Lys Ile Pro Ser Ala Lys Gly Lys His Lys Ala Phe Ser		
225	230	235
Thr Cys Ser Ser His Leu Leu Val Val Ser Leu Phe Tyr Val Ser Ser		
240	245	250
Ser Leu Thr Tyr Phe Arg Pro Lys Ser Asn Asn Ser Pro Glu Ser Lys		
255	260	265
Lys Leu Leu Ser Leu Ser Tyr Thr Val Val Thr Pro Met Leu Asn Pro		
270	275	280
Ile Ile Tyr Ser Leu Arg Asn Asn Glu Val Lys Ser Ala Leu Ser Arg		
285	290	295
Thr Phe His Lys Ala Leu Ala Leu Arg Asn His Ile Thr		
300	305	310
315		
<210> 95		
<211> 317		
<212> PRT		
<213> Homo sapiens		
<400> 95		
Ile Ala Thr Gly Asn Trp Thr Arg Ile Ser Glu Phe Ile Leu Met Ser		
1	5	10
Phe Ser Ser Leu Pro Thr Glu Ile Gln Ser Leu Leu Phe Leu Thr Phe		
15	20	25
Leu Thr Ile Tyr Leu Val Thr Leu Met Gly Asn Cys Leu Ile Ile Leu		
30	35	40
Val Thr Leu Ala Asp Pro Met Leu His Ser Pro Met Tyr Phe Phe Leu		
45	50	55
Arg Asn Leu Ser Phe Leu Glu Ile Gly Phe Asn Leu Val Ile Val Pro		
60	65	70
Lys Met Leu Gly Thr Leu Leu Ala Gln Asp Thr Thr Ile Ser Phe Leu		
75	80	85
Gly Cys Ala Thr Gln Met Tyr Phe Phe Phe Phe Gly Val Ala Glu		
90	95	100
105		
110		

Cys Phe Leu Leu Ala Thr Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys
 115 120 125
 Ser Pro Leu His Tyr Pro Val Ile Met Asn Gln Arg Thr Arg Ala Lys
 130 135 140
 Leu Ala Ala Thr Ser Trp Phe Pro Gly Phe Pro Val Ala Thr Val Gln
 145 150 155 160
 Thr Thr Trp Leu Phe Ser Phe Pro Phe Cys Gly Thr Asn Lys Val Asn
 165 170 175
 His Phe Phe Cys Asp Ser Pro Pro Val Leu Arg Leu Val Cys Ala Asp
 180 185 190
 Thr Ala Leu Phe Glu Ile Tyr Ala Ile Val Gly Thr Ile Leu Val Val
 195 200 205
 Met Ile Pro Cys Leu Leu Ile Leu Cys Ser Tyr Thr His Ile Ala Ala
 210 215 220
 Ala Ile Leu Lys Ile Pro Ser Ala Lys Gly Lys Asn Lys Ala Phe Ser
 225 230 235 240
 Thr Cys Ser Ser His Leu Leu Val Val Ser Leu Phe Tyr Ile Ser Leu
 245 250 255
 Ser Leu Thr Tyr Phe Arg Pro Lys Ser Asn Asn Ser Pro Glu Gly Lys
 260 265 270
 Lys Leu Leu Ser Leu Ser Tyr Thr Val Met Thr Pro Met Leu Asn Pro
 275 280 285
 Ile Ile Tyr Ser Leu Arg Asn Asn Glu Val Lys Asn Ala Leu Ser Arg
 290 295 300
 Thr Val Ser Lys Ala Leu Ala Leu Arg Asn Cys Ile Pro
 305 310 315

<210> 96
 <211> 1019
 <212> DNA
 <213> Homo sapiens

<400> 96
 gtgctggctt cagggAACAG ctcttctcat cctgtgtcct tcatacctgct tggaaatccca 60
 ggcctggaga gtttccagggtt gtggattgcc ttcccggtct gtggcacgtt tgctgtggct 120
 gttgttggaa atatcactct cctccatgtt atcagaattt accacacccct gcatgagccc 180
 atgtacctct ttctggccat gctggccatc actgacctgg tcctcttcctc ctccactcaa 240
 cctaaatgtt tggccatatt ctgggttcat gctcatgaga ttcagttacca tgcctgcctc 300
 atccagggtt tcttcatcca tgcctttct tctgtggagt ctgggggtgct catggctatg 360
 gccctggact gctacgtggc tatctgcttc ccactccgac actctagcat cctgacccca 420
 tcggcgtgttca tcaaactgg gaccatgtt atgctgagag ggctgctgtt ggtgagcccc 480
 ttctgttca tgggtgtctat gatgcccttc tgccaaacacc aagccattcc ccagtcatatc 540
 tgtgagcaca tggctgtgtt gaagggtgtt tggctgata caagcataag tcgtggaaat 600
 gggcttttgc tggccttc tggctggc tttgatatga ttgtcattgg tatgtcatac 660

gtgatgattt tgagagctgt gcttcaggtg ccctcaggtg aagccgcct caaagctttt 720
agcacacgtt cctccatat ctgtgtcatc ttggctctt atatcccagc cctttttct 780
ttcctcacct accgcttgg ccatgatgtg ccccgagttg tacacatcct gtttgcta 840
ctctatctac tgataccctcc catgctcaac cccatcattt atgaggttag aaccaaacag 900
atcggggaca gggtatcca aggtgttgtt gaaaaatcc cctgagcaaa gggtcagtgt 960
atccccatca ottacattgc cccactaatg tggggacatt aatgaacatt tgacaggct 1019

<210> 97

<211> 314

<212> PRT

<213> Homo sapiens

<400> 97

Val Leu Ala Ser Gly Asn Ser Ser Ser His Pro Val Ser Phe Ile Leu
1 5 10 15

Leu Gly Ile Pro Gly Leu Glu Ser Phe Gln Leu Trp Ile Ala Phe Pro
20 25 30

Phe Cys Ala Thr Tyr Ala Val Ala Val Val Gly Asn Ile Thr Leu Leu
35 40 45

His Val Ile Arg Ile Asp His Thr Leu His Glu Pro Met Tyr Leu Phe
50 55 60

Leu Ala Met Leu Ala Ile Thr Asp Leu Val Leu Ser Ser Ser Thr Gln
65 70 75 80

Pro Lys Met Leu Ala Ile Phe Trp Phe His Ala His Glu Ile Gln Tyr
85 90 95

His Ala Cys Leu Ile Gln Val Phe Phe Ile His Ala Phe Ser Ser Val
100 105 110

Glu Ser Gly Val Leu Met Ala Met Ala Leu Asp Cys Tyr Val Ala Ile
115 120 125

Cys Phe Pro Leu Arg His Ser Ser Ile Leu Thr Pro Ser Val Val Ile
130 135 140

Lys Leu Gly Thr Ile Val Met Leu Arg Gly Leu Leu Trp Val Ser Pro
145 150 155 160

Phe Cys Phe Met Val Ser Arg Met Pro Phe Cys Gln His Gln Ala Ile
165 170 175

Pro Gln Ser Tyr Cys Glu His Met Ala Val Leu Lys Leu Val Cys Ala
180 185 190

Asp Thr Ser Ile Ser Arg Gly Asn Gly Leu Phe Val Ala Phe Ser Val
195 200 205

Ala Gly Phe Asp Met Ile Val Ile Gly Met Ser Tyr Val Met Ile Leu
210 215 220

Arg Ala Val Leu Gln Leu Pro Ser Gly Glu Ala Arg Leu Lys Ala Phe

225	230	235	240
Ser Thr Arg Ser Ser His Ile Cys Val Ile Leu Ala Leu Tyr Ile Pro			
245	250	255	
Ala Leu Phe Ser Phe Leu Thr Tyr Arg Phe Gly His Asp Val Pro Arg			
260	265	270	
Val Val His Ile Leu Phe Ala Asn Leu Tyr Leu Leu Ile Pro Pro Met			
275	280	285	
Leu Asn Pro Ile Ile Tyr Gly Val Arg Thr Lys Gln Ile Gly Asp Arg			
290	295	300	
Val Ile Gln Gly Cys Cys Gly Asn Ile Pro			
305	310		
<210> 98			
<211> 339			
<212> PRT			
<213> Mus musculus			
<400> 98			
Met Pro Glu Lys Met Leu Ser Lys Leu Ile Ala Tyr Leu Leu Ile			
1	5	10	15
Glu Ser Cys Arg Gln Thr Ala Gln Leu Val Lys Gly Arg Arg Ile Trp			
20	25	30	
Val Asp Ser Arg Pro His Trp Pro Asn Thr Thr His Tyr Arg Glu Leu			
35	40	45	
Glu Asp Gln His Val Trp Ile Ala Ile Pro Phe Cys Ser Met Tyr Ile			
50	55	60	
Leu Ala Leu Val Gly Asn Gly Thr Ile Leu Tyr Ile Ile Ile Thr Asp			
65	70	75	80
Arg Ala Leu His Glu Pro Met Tyr Leu Phe Leu Cys Leu Leu Ser Ile			
85	90	95	
Thr Asp Leu Val Leu Cys Ser Thr Thr Leu Pro Lys Met Leu Ala Ile			
100	105	110	
Phe Trp Leu Arg Ser His Val Ile Ser Tyr His Gly Cys Leu Thr Gln			
115	120	125	
Met Phe Phe Val His Ala Val Phe Ala Thr Glu Ser Ala Val Leu Leu			
130	135	140	
Ala Met Ala Phe Asp Arg Tyr Val Ala Ile Cys Arg Pro Leu His Tyr			
145	150	155	160
Thr Ser Ile Leu Asn Ala Val Val Ile Gly Lys Ile Gly Leu Ala Cys			
165	170	175	

Val	Thr	Arg	Gly	Leu	Leu	Phe	Val	Phe	Pro	Phe	Val	Ile	Leu	Ile	Glu
				180				185				190			
Arg	Leu	Pro	Phe	Cys	Gly	His	His	Ile	Ile	Pro	His	Thr	Tyr	Cys	Glu
	195					200				205					
His	Met	Gly	Ile	Ala	Lys	Leu	Ala	Cys	Ala	Ser	Ile	Lys	Pro	Asn	Thr
	210				215					220					
Ile	Tyr	Gly	Leu	Thr	Val	Ala	Leu	Ser	Val	Thr	Gly	Met	Asp	Val	Val
	225				230			235		240					
Leu	Ile	Ala	Thr	Ser	Tyr	Ile	Leu	Ile	Leu	Gln	Ala	Val	Leu	Arg	Leu
	245					250			255						
Pro	Ser	Lys	Asp	Ala	Gln	Phe	Arg	Ala	Phe	Ser	Thr	Cys	Gly	Ala	His
	260					265		270							
Ile	Cys	Val	Ile	Leu	Val	Phe	Tyr	Ile	Pro	Ala	Phe	Ser	Phe	Phe	
	275				280			285							
Thr	His	Arg	Phe	Gly	His	His	Val	Pro	Pro	Gln	Val	His	Ile	Ile	Leu
	290				295			300							
Ala	Asn	Leu	Tyr	Leu	Leu	Val	Pro	Pro	Val	Leu	Asn	Pro	Leu	Val	Tyr
	305				310			315		320					
Gly	Ile	Asn	Thr	Lys	Gln	Ile	Arg	Leu	Arg	Ile	Leu	Asp	Phe	Phe	Val
		325				330			335						
Lys	Arg	Arg													

<210> 99
 <211> 326
 <212> PRT
 <213> Mus musculus

<400> 99															
Met	Lys	Val	Ala	Ser	Ser	Phe	His	Asn	Asp	Thr	Asn	Pro	Gln	Asp	Val
1				5					10				15		
Trp	Tyr	Val	Leu	Ile	Gly	Ile	Pro	Gly	Leu	Glu	Asp	Leu	His	Ser	Trp
				20				25			30				
Ile	Ala	Ile	Pro	Ile	Cys	Ser	Met	Tyr	Ile	Val	Ala	Val	Ile	Gly	Asn
					35			40			45				
Val	Leu	Leu	Ile	Phe	Leu	Ile	Val	Thr	Glu	Arg	Ser	Leu	His	Glu	Pro
					50			55		60					
Met	Tyr	Phe	Phe	Leu	Ser	Met	Leu	Ala	Leu	Ala	Asp	Leu	Leu	Leu	Ser
	65					70			75		80				
Thr	Ala	Thr	Ala	Pro	Lys	Met	Leu	Ala	Ile	Phe	Trp	Phe	His	Ser	Arg
					85			90		95					

Gly Ile Ser Phe Gly Ser Cys Val Ser Gln Met Phe Phe Ile His Phe
 100 105 110
 Ile Phe Val Ala Glu Ser Ala Ile Leu Leu Ala Met Ala Phe Asp Arg
 115 120 125
 Tyr Val Ala Ile Cys Tyr Pro Leu Arg Tyr Thr Thr Ile Leu Thr Ser
 130 135 140
 Ser Val Ile Gly Lys Ile Gly Thr Ala Ala Val Val Arg Ser Phe Leu
 145 150 155 160
 Ile Cys Phe Pro Phe Ile Phe Leu Val Tyr Arg Leu Leu Tyr Cys Gly
 165 170 175
 Lys His Ile Ile Pro His Ser Tyr Cys Glu His Met Gly Ile Ala Arg
 180 185 190
 Leu Ala Cys Asp Asn Ile Thr Val Asn Ile Ile Tyr Gly Leu Thr Met
 195 200 205
 Ala Leu Leu Ser Thr Gly Leu Asp Ile Leu Leu Ile Ile Ile Ser Tyr
 210 215 220
 Thr Met Ile Leu Arg Thr Val Phe Gln Ile Pro Ser Trp Ala Ala Arg
 225 230 235 240
 Tyr Lys Ala Leu Asn Thr Cys Gly Ser His Ile Cys Val Ile Leu Leu
 245 250 255
 Phe Tyr Thr Pro Ala Phe Phe Ser Phe Phe Ala His Arg Phe Gly Gly
 260 265 270
 Lys Thr Val Pro Arg His Ile His Ile Leu Val Ala Asn Leu Tyr Val
 275 280 285
 Val Val Pro Pro Met Leu Asn Pro Ile Ile Tyr Gly Val Lys Thr Lys
 290 295 300
 Gln Ile Gln Asp Arg Val Val Phe Leu Phe Ser Ser Val Ser Thr Cys
 305 310 315 320
 Gln His Asp Ser Arg Cys
 325

<210> 100
 <211> 316
 <212> PRT
 <213> Mus musculus

<400> 100
 Met Pro His Leu Asn Ser Thr Ile Phe Arg Pro Ser Val Leu Thr Leu
 1 5 10 15
 Thr Gly Ile Pro Gly Leu Glu Ser Val Gln Phe Trp Ile Gly Ile Pro

20	25	30
Phe Cys Ile Met Tyr Ile Ile Ala Leu Leu Gly Asn Ser Leu Leu Leu		
35	40	45
Val Val Ile Lys Val Glu Arg Ser Leu His Glu Pro Met Tyr Leu Phe		
50	55	60
Leu Ala Met Leu Gly Ala Thr Asp Ile Ser Leu Ser Thr Ser Ile Leu		
65	70	75
Pro Lys Met Leu Gly Ile Phe Trp Phe His Leu Ser Thr Ile Tyr Phe		
85	90	95
Asp Ala Cys Leu Leu Gln Met Trp Leu Ile His Thr Phe Gln Gly Ile		
100	105	110
Glu Ser Gly Ile Leu Phe Ala Met Ala Met Asp Arg Tyr Val Ala Ile		
115	120	125
Cys Asp Pro Leu Arg His Ala Ser Ile Phe Thr Gln Arg Leu Leu Thr		
130	135	140
Gln Ile Gly Val Gly Val Thr Leu Arg Ala Ala Leu Phe Val Ala Pro		
145	150	155
160		
Cys Leu Phe Leu Ile Lys Cys Arg Leu Lys Phe Tyr Trp Thr Thr Val		
165	170	175
Val Ser His Ser Tyr Cys Glu His Met Ala Ile Val Lys Leu Ala Ala		
180	185	190
Glu Asp Val His Val Asn Lys Ile Tyr Gly Leu Phe Val Ala Phe Ser		
195	200	205
Ile Leu Gly Leu Asp Ile Ile Phe Ile Thr Leu Ser Tyr Ile Arg Ile		
210	215	220
Phe Ile Thr Val Phe Lys Leu Pro Gln Lys Glu Ala Arg Leu Lys Ala		
225	230	235
240		
Phe Asn Thr Cys Val Ala His Ile Cys Val Phe Leu Glu Phe Tyr Leu		
245	250	255
Leu Ala Phe Phe Ser Phe Phe Thr His Arg Phe Gly Tyr His Val Pro		
260	265	270
Ser Tyr Ile His Ile Leu Leu Ser Asn Leu Tyr Leu Leu Val Pro Pro		
275	280	285
Leu Leu Asn Pro Ile Val Tyr Gly Val Lys Thr Lys Gln Ile Arg Asp		
290	295	300
Gln Val Ser Lys Ile Leu Tyr Cys Asn Tyr Ser Tyr		
305	310	315

<210> 101
<211> 318
<212> PRT
<213> Homo sapiens

<400> 101
Met Ser Asp Ser Asn Leu Ser Asp Asn His Leu Pro Asp Thr Phe Phe
1 5 10 15
Leu Thr Gly Ile Pro Gly Leu Glu Ala Ala His Phe Trp Ile Ala Ile
20 25 30
Pro Phe Cys Ala Met Tyr Leu Val Ala Leu Val Gly Asn Ala Ala Leu
35 40 45
Ile Leu Val Ile Ala Met Asp Asn Ala Leu His Ala Pro Met Tyr Leu
50 55 60
Phe Leu Cys Leu Leu Ser Leu Thr Asp Leu Ala Leu Ser Ser Thr Thr
65 70 75 80
Val Pro Lys Met Leu Ala Ile Leu Trp Leu His Ala Gly Glu Ile Ser
85 90 95
Phe Gly Gly Cys Leu Ala Gln Met Phe Cys Val His Ser Ile Tyr Ala
100 105 110
Leu Glu Ser Ser Ile Leu Leu Ala Met Ala Phe Asp Arg Tyr Val Ala
115 120 125
Ile Cys Asn Pro Leu Arg Tyr Thr Thr Ile Leu Asn His Ala Val Ile
130 135 140
Gly Arg Ile Gly Phe Val Gly Leu Phe Arg Ser Val Ala Ile Val Ser
145 150 155 160
Pro Phe Ile Phe Leu Leu Arg Arg Leu Pro Tyr Cys Gly His Arg Val
165 170 175
Met Thr His Thr Tyr Cys Glu His Met Gly Ile Ala Arg Leu Ala Cys
180 185 190
Ala Asn Ile Thr Val Asn Ile Val Tyr Gly Leu Thr Val Ala Leu Leu
195 200 205
Ala Met Gly Leu Asp Ser Ile Leu Ile Ala Ile Ser Tyr Gly Phe Ile
210 215 220
Leu His Ala Val Phe His Leu Pro Ser His Asp Ala Gln His Lys Ala
225 230 235 240
Leu Ser Thr Cys Gly Ser His Ile Gly Ile Ile Leu Val Phe Tyr Ile
245 250 255
Pro Ala Phe Phe Ser Phe Leu Thr His Arg Phe Gly His His Glu Val
260 265 270

Pro Lys His Val His Ile Phe Leu Ala Asn Leu Tyr Val Leu Val Pro
275 280 285

Pro Val Leu Asn Pro Ile Leu Tyr Gly Ala Arg Thr Lys Glu Ile Arg
290 295 300

Ser Arg Leu Leu Lys Leu Leu His Leu Gly Lys Thr Ser Ile
305 310 315

<210> 102

<211> 312

<212> PRT

<213> Homo sapiens

<400> 102

Met Ser Ile Ser Asn Ile Thr Val Tyr Met Pro Ser Val Leu Thr Leu
1 5 10 15

Val Gly Ile Pro Gly Leu Glu Ser Val Gln Cys Trp Ile Gly Ile Pro
20 25 30

Phe Cys Ala Ile Tyr Leu Ile Ala Met Ile Gly Asn Ser Leu Leu Leu
35 40 45

Ser Ile Ile Lys Ser Glu Arg Ser Leu His Glu Pro Leu Tyr Ile Phe
50 55 60

Leu Gly Met Leu Gly Ala Thr Asp Ile Ala Leu Ala Ser Ser Ile Met
65 70 75 80

Pro Lys Met Leu Gly Ile Phe Trp Phe Asn Val Pro Glu Ile Tyr Phe
85 90 95

Asp Ser Cys Leu Leu Gln Met Trp Phe Ile His Thr Leu Gln Gly Ile
100 105 110

Glu Ser Gly Ile Leu Val Ala Met Ala Leu Asp Arg Tyr Val Ala Ile
115 120 125

Cys Tyr Pro Leu Arg His Ala Asn Ile Phe Thr His Gln Leu Val Ile
130 135 140

Gln Ile Gly Thr Met Val Val Leu Arg Ala Ala Ile Leu Val Ala Pro
145 150 155 160

Cys Leu Val Leu Ile Lys Cys Arg Phe Gln Phe Tyr His Thr Thr Val
165 170 175

Ile Ser His Ser Tyr Cys Glu His Met Ala Ile Val Lys Leu Ala Ala
180 185 190

Ala Asn Val Gln Val Asn Lys Ile Tyr Gly Leu Phe Val Ala Phe Thr
195 200 205

Val Ala Gly Phe Asp Leu Thr Phe Ile Thr Leu Ser Tyr Ile Gln Ile
210 215 220

Phe Ile Thr Val Phe Arg Leu Pro Gln Lys Glu Ala Arg Phe Lys Ala
225 230 235 240

Phe Asn Thr Cys Ile Ala His Ile Cys Val Phe Leu Gln Phe Tyr Leu
245 250 255

Leu Ala Phe Phe Ser Phe Phe Thr His Arg Phe Gly Ser His Ile Pro
260 265 270

Pro Tyr Ile His Ile Leu Phe Ser Ser Ile Tyr Leu Leu Val Pro Pro
275 280 285

Phe Leu Asn Pro Leu Val Tyr Gly Ala Lys Thr Thr Gln Ile Arg Ile
290 295 300

His Val Val Lys Met Phe Cys Ser
305 310

<210> 103

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 103

ccccatactg tggatcatgg caaat

25

<210> 104

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 104

ggctcatcat tgtgccttgc aaag

24

<210> 105

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 105

ctcatcattg tgccttgcaa aggc

24

<210> 106
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 106
gactaaatga tggacaacca ctctagt 27

<210> 107
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 107
agctaatactt tcaggagttg acaggc 25

<210> 108
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 108
caatgatgga aatagccaaat gtgag 25

<210> 109
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 109
gagtctctaa atttgcgcca gctt 24

<210> 110
<211> 27
<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 110
agctgtggac catctcttca gaactct 27

<210> 111

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 111
ctcacctgga ggcccgactc 20

<210> 112

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 112
tgctcttccc tctgtgctca gc 22

<210> 113

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 113
gatggcctca gctactaacc tgagac 26

<210> 114

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 114
gtcagcctcc aatatcacct taaca

25

<210> 115
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 115
cctctacata tcctttcttg ggaatac

27

<210> 116
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 116
ccatggaggc tgccaatgag tctt

24

<210> 117
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 117
agttgccagt gtgggtgatg cagt

24

<210> 118
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 118
atgggtgaac cagtcctaca cagatg

26

<210> 119
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 119
gttcagtgct ggctgccaat c 21

<210> 120
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 120
tctctgtttc ctcagggatt gagaaag 27

<210> 121
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 121
tctacactcg gggcaaccac aatt 24

<210> 122
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 122
attatggaaa cacagaacct cacagtg 27

<210> 123
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 123
tctccgttct tgctttctc tttcttc

27

<210> 124
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 124
atggctggat ctctattccc ttctgct

27

<210> 125
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 125
ctgtgggctt tatgtccaaa acttcct

27

<210> 126
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 126
gtctcacctc acactggctc tc

22

<210> 127
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 127

catctttctg tatgtcaggc ctggca

26

<210> 128
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 128
ctgacttgca cagagtgagc tt

22

<210> 129
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 129
catagctgac acccacctac at

22

<210> 130
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 130
cacccatgtc ctttttcctg ggcaat

26

<210> 131
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 131
actgcagtca tggttaccaa ga

22

<210> 132
<211> 22

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 132
catagctgac acccacctac at 22

<210> 133
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 133
caccatgta cttttcctg ggcaat 26

<210> 134
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 134
ctgcagtcat ggttaccaag at 22

<210> 135
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 135
aaggctttc agcctctaca 20

<210> 136
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:

oligonucleotide primer

<400> 136
tctgcccctg tagcactgtt ttaactg 27

<210> 137
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 137
cccctttctc aatcccttta t 21

<210> 138
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 138
atgggaaaca ccatcatcat ag 22

<210> 139
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 139
tggtcatagc tgacacccac ctacat 26

<210> 140
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 140
aattgcccag gaagaagtac at 22

<210> 141
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 141
tgattgtctg tgtggataaa cg 22

<210> 142
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 142
tcttcctcag ccacctctct accctg 26

<210> 143
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 143
ttatggttgt gaccaggatc tc 22

<210> 144
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 144
cattgtgatt gtctgtgtgg at 22

<210> 145
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 145
tcttcctcag ccacctctct accctg 26

<210> 146
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 146
ttatgttgtt gaccaggatc tc 22

<210> 147
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 147
ggctgtggtg tctctgtttt ac 22

<210> 148
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 148
catcttcatg tatctccagc cagcca 26

<210> 149
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 149
ctatgaacctt gccctgctca t 21

<210> 150
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 150
agggcaagtt catagctctg tt 22

<210> 151
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 151
ctacaccgta gtcactcctg cgctga 26

<210> 152
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 152
cgtgttcctc agggtgtaaa ta 22

<210> 153
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 153
agtcacttca cctgcaagat cct 23

<210> 154

<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 154
ccgcatgccca gcttcagcac tg 22

<210> 155
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 155
cttcgctgac cgacgtgtt 19

<210> 156
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 156
acaaccccat gtacttcctt ct 22

<210> 157
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 157
agcaacacctt ccctcatggaa catctg 26

<210> 158
<211> 22
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 158
gggttccag gaaattgtct ag

22

<210> 159
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 159
ttttatggga caatctccctt ca

22

<210> 160
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 160
tgtacttcaa acccaaggcc aaggat

26

<210> 161
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 161
gaacaatgcg acagtcttat cc

22

<210> 162
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 162
cacaactgtg gtcatctctt ca

22

<210> 163
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 163
ccctcatgtc cacatcctcc ttacca 26

<210> 164
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 164
ggtgggaaga gcagatagaa at 22

<210> 165
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 165
taacacatcc aactgccttc tt 22

<210> 166
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 166
aggcctggaa cacctgcaca tct 23

<210> 167
<211> 22
<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 167
ctaacagaaaa agggatggag at 22

<210> 168
<211> 22
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 168
tcttcaggca gttctactgc tt 22

<210> 169
<211> 23
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 169
ctctcaggag gcccgctaca agg 23

<210> 170
<211> 22
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 170
tggcacctat atgagagaca ca 22

<210> 171
<211> 22
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 171
catcatctac agcctctgga at 22

<210> 172
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 172
cactccgagc ctttcattt ggg 23

<210> 173
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 173
cctcaggagt cactagctga ga 22

<210> 174
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 174
catcatctac agcctctgga at 22

<210> 175
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 175
cactccgagc ctttcattt ggg 23

<210> 176
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 176
cctcaggagt cactagctga ga 22

<210> 177
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 177
gaggagaatg ctgctgatgt ac 22

<210> 178
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 178
tggtctcata cacagtgatg tcgcc 26

<210> 179
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 179
ccagctgttg tgaagtttgt at 22

<210> 180
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 180
ggcagaagaa tcagacacct ct

22

```
<210> 181
<211> 26
<212> DNA
<213> Artificial Sequence
```

<220>
<223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 181
acttcatcct tgaggggctc ttcgat

26

```
<210> 182
<211> 22
<212> DNA
<213> Artificial Sequence
```

<220>
<223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 182
gagaaaagga aaaggtgggt aa

22

```
<210> 183
<211> 20
<212> DNA
<213> Artificial Sequence
```

<220>
<223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 183
ctcatctggg agcaagagaa

20

```
<210> 184
<211> 23
<212> DNA
<213> Artificial Sequence
```

<220>
<223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 184

acttgtggct cccacacctac ggt 23

<210> 185
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 185
aggcaccaaaa ccaaagaga 19

<210> 186
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 186
ggctacttgt acaatggaat gg 22

<210> 187
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 187
caagccacag aaccaacgat aatgca 26

<210> 188
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 188
tcaaccatca tgaaccctag ag 22

<210> 189
<211> 22

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 189
gatgctcaac ttctggtctt tg 22

<210> 190
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 190
catcctccct gaaaatttcc tcatca 26

<210> 191
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 191
cagggtctga ctttatggtg aa 22

<210> 192
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 192
gatgccaatc tctctggtagt ca 22

<210> 193
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:

oligonucleotide primer

<400> 193
aaccagaaaa tgcccagcac agtg

24

<210> 194
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 194
ctgtcacaga cttaggcctt tg

22

<210> 195
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 195
gtctccatgg ctggatctct at

22

<210> 196
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 196
tcccttctgc ttcatctacc tgacag

26

<210> 197
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 197
tacaaatgac gtggagaatg gt

22

<210> 198
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 198
gtgaatttgt tctcgtgagc tt 22

<210> 199
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 199
ccctgtccac tgagcttcag gctctca 26

<210> 200
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 200
tggtcaagaa aaggagaaac ag 22

<210> 201
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 201
atttgttctc gtgagcttct ca 22

<210> 202
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer
<400> 202
ccctgtccac tgagcttcag gctcta

<210> 203
<211> 22
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence:
oligonucleotide primer
<400> 203
cattgccccat taaagtaaacc aa

<210> 204
<211> 22
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence:
oligonucleotide primer
<400> 204
ttccacaaca tccttgata ac

<210> 205
<211> 26
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence:
oligonucleotide primer
<400> 205
ccccgatctg tttggttctta actccca

<210> 206
<211> 22
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

26

22

22

26

<400> 206 tactgatacc tcccatgctc aa 22

<210> 207
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 207 gattttgaga gctgtgcttc ag 22

<210> 208
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 208 cctcaaagct tttagcacac gtgact 26

<210> 209
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 209 agccaaagatg acacagatat gg 22